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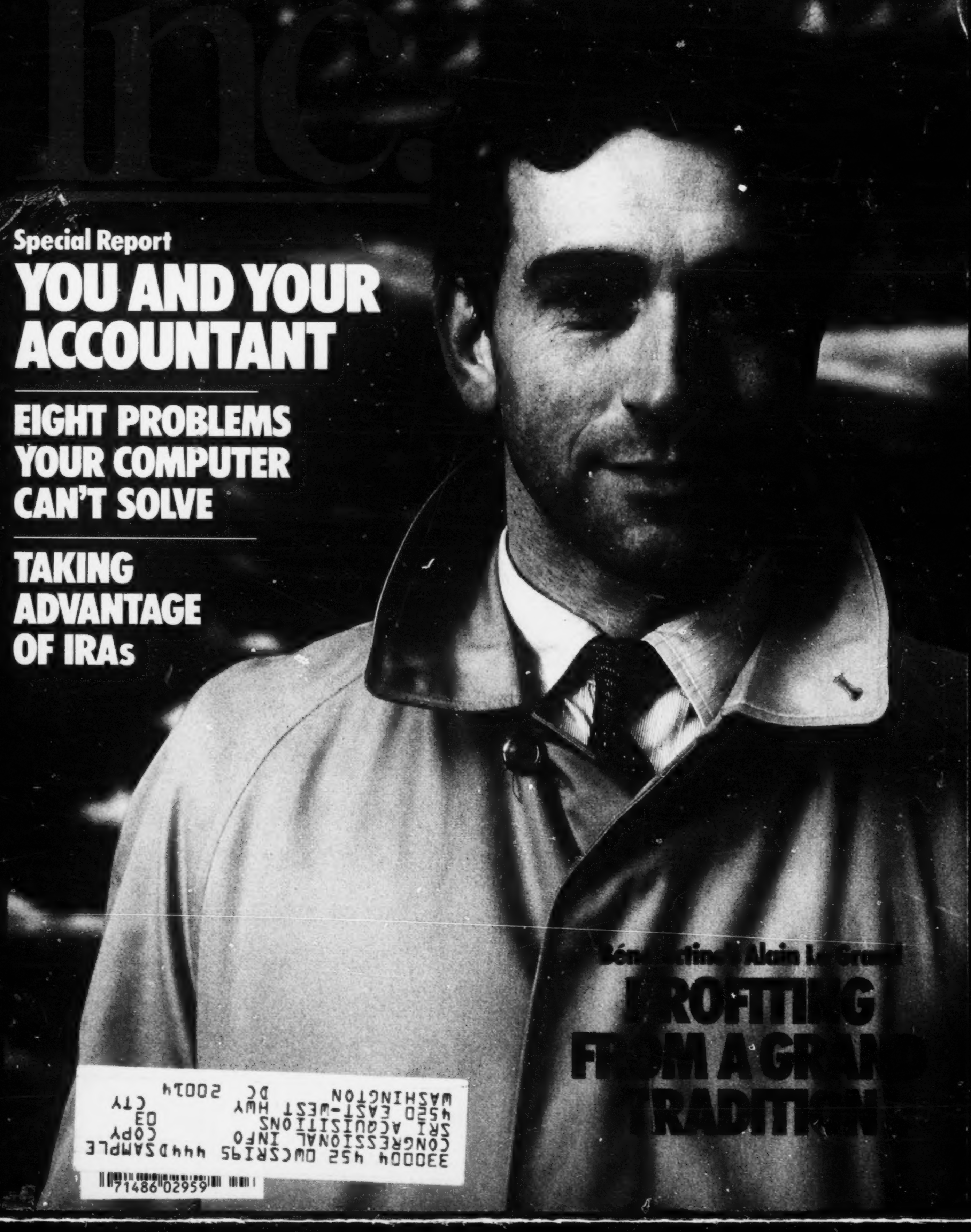

Special Report

YOU AND YOUR ACCOUNTANT

EIGHT PROBLEMS YOUR COMPUTER CAN'T SOLVE

TAKING ADVANTAGE OF IRAs

Bénédictine's Alain Le Grand

PROFITING FROM A GRAND TRADITION

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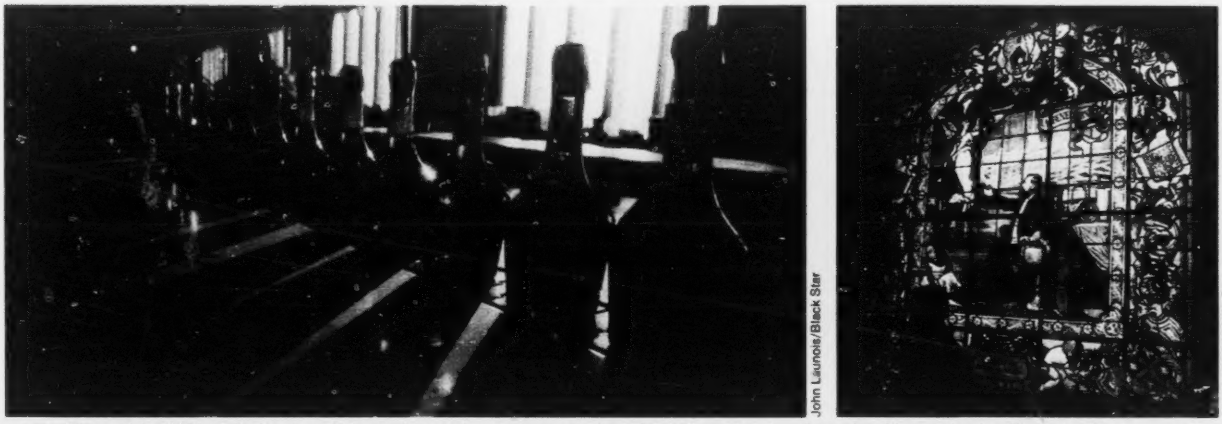

John Launois/Black Star

John Launois/Black Star

42 *The spirit of Bénédictine is celebrated in stained-glass window (right), portraying founder Alexandre Le Grand with an angel bearing a bottle of the brandy; 100 years later Alexandre's descendants are still producing the liqueur.*

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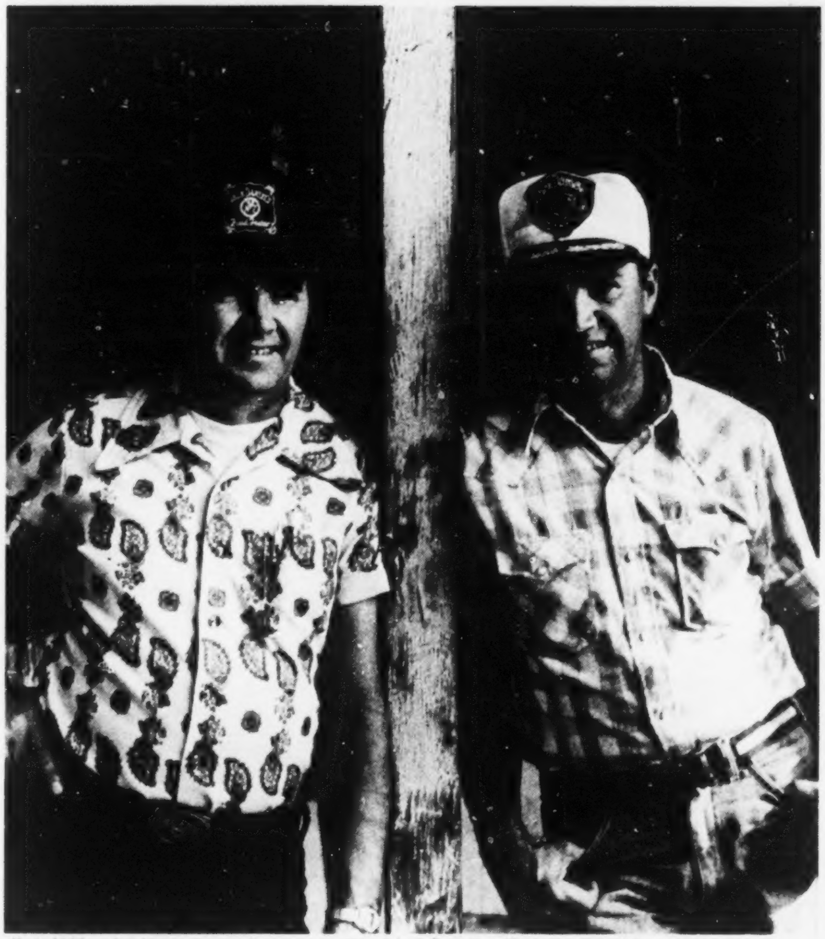
John Launois/Black Star



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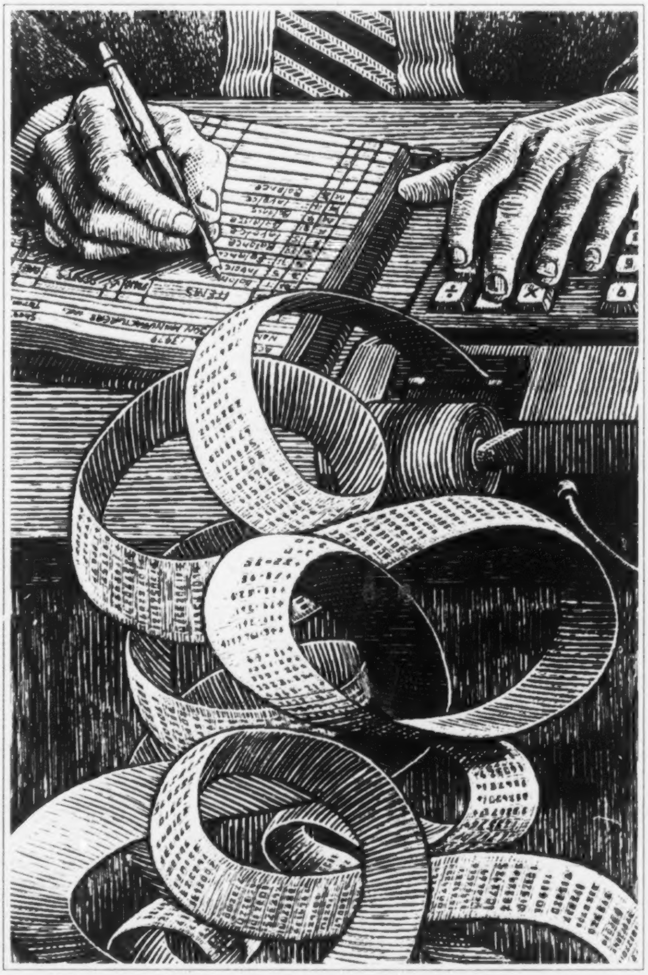
INC. Special Report

YOU AND YOUR ACCOUNTANT

How to evaluate the relationship between you and your company's most important adviser.

By Bradford W. Ketchum, Jr.



The public accountant is a powerful force. The quality of his advice directly affects a company's taxes, its balance sheets, and even its management decisions. Yet many small business executives find it difficult to work with accountants since their own backgrounds are more likely to be in sales, engineering, or research. More than two out of three (69%) of the chief executives surveyed by INC., for example, have no finance or accounting background.

As a result, many small businesses find public accountants somewhat intimidating, regarding them as outsiders who serve as buffers against an even more intimidating Internal Revenue Service. At best, the public accountant is considered an impartial paper-pusher who comes in periodically to wrestle with the company's books at a borrowed desk.

But an increasing number of small businesses view their outside accountants in a different role. Asked to identify their No. 1 advisers, for example, more than half of the respondents to INC.'s study cited their public accountants. Many of these companies have established a working relationship in which the accountant is an indispensable sounding board and business counselor. In short, their accountants not only review the books and compute taxes, but also provide crucial advice on such matters as cash flow, credit, cost control, and systems management.

To help small companies evaluate and improve their rapport with accounting professionals, INC. surveyed more than 5,000 small business executives and over 2,000 public accountants (see box). The results of the study are summarized in the following eight-point checklist and accompanying tables.

1. How big should your own staff be?

Most small companies have limited inhouse accounting staffs. The majority of those with sales of less than $1 million employ only one person in a bookkeeping or accounting function. Those with sales of up to $5 million generally employ only two or three in accounting, and the number jumps to five or six as company size grows toward $25 million. Only in companies with sales of more than $25 million is the in-house accounting staff likely to exceed half a dozen employees. Furthermore, in two out of three companies surveyed by INC., the chief executive also doubles as the chief financial officer. Only among companies with sales of more than $5 million does the majority have full-time chief financial officers. In these cases, the top financial manager is generally a vice-president, treasurer, or controller heading an accounting staff.

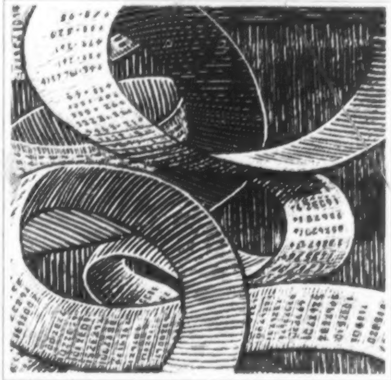
Whether it consists of one person or half a dozen people, your internal staff is a vital link between your business and its outside accountants. While any decision about your accounting firm is up to top management, it is one that should not be made without consulting your staff, which may have different insights into the technical competence and personal chemistry necessary for a productive relationship. Does your staff feel free to call the company accountant with questions? Do they receive a ready response, and does the advice work? How often has your outside accountant shown your staff how to streamline its paperwork? Does the accountant take the time to make sure your staff understands the finer points in a company statement? Answers to such questions represent the first step in eval-

Illustrations by Doug Smith

uating your outside accounting firm.

2. What should your public accountant be telling you? Some 51% of the respondents to INC.'s survey regard their public accountants as their chief outside advisers (followed by their attorneys and bankers). Preparation of tax returns and financial statements may be your accountant's primary responsibility, but it should not be his only duty. The documents he prepares should satisfy Uncle Sam's requirements, but they should also be treated as financial tools that meet management's needs.

Besides combing your books, your accountant should monitor your business and suggest alternatives for controlling costs and improving profits. In short, he should serve not as a part-time manager but as a full-time adviser to management.



The recent changes in the tax law provide a good test of your accountant's technical competence and ability to keep you advised. Chances are your accountant has mentioned the Economic Recovery Tax Act of 1981, but has he fully explained its impact on your business? The sweeping revisions in the tax law may or may not affect your 1981 return, but they're guaranteed to have an impact on your business taxes this year and for at least six years to come. While the new rules governing depreciation schedules and investment credits may not be important to you, your accountant should be filling you in on other revisions ranging from the modest cuts in corporate tax rates to the new rules governing estate and gift taxes.

Understandably, the impact of the 1981 tax law is currently the chief topic of discussion between small business executives and their public accountants. Close to half (49%) of the respondents to INC.'s survey cited the tax act as a matter on which they have recently received accounting advice. Other key concerns include state and local tax laws, reporting rules, employee retirement programs, estate planning, and inventory valuation.

Top management apparently keeps business and personal matters separate, however. Less than 1% of the respondents noted that they rely on the company's

THE INSIDE STORY

How in-house staff size relates to annual sales, fees paid, and type of accounting firm used.

	No. on internal accounting staff								
	0	1	2	3	4	5	6	7-10	11+
Annual Company Sales	Percent of respondents								
Under $1 million	13%	55%	22%	5%	2%	1%	–	1%	1%
$1 million–$2.9 million	3	27	40	17	8	3	–	1	1
$3 million–$4.9 million	6	14	32	23	13	5	2	5	–
$5 million–$24.9 million	4	7	13	17	11	13	13	11	11
$25 million or more	8	–	3	–	6	8	9	23	43
Percent of all respondents	8%	32	25	13	7	4	3	4	4

	No. on internal accounting staff								
	0	1	2	3	4	5	6	7-10	11+
Annual fee paid to outside firm	Percent of respondents								
Under $1,000	15%	56%	22%	7%	–	–	–	–	–
$1,000–$5,000	8	42	31	10	6	1	1	1	–
$5,000+	5	17	21	18	9	8	6	8	8

	No. on internal accounting staff								
	0	1	2	3	4	5	6	7-10	11+
Type of accounting firm used	Percent of respondents								
Sole practitioner	9%	43%	27%	8%	7%	3%	1%	1%	1%
Local	8	34	25	14	8	3	2	4	2
Regional	6	30	29	16	5	4	4	3	3
National	2	19	29	16	6	6	6	8	8
Big Eight	5	9	17	11	7	12	7	10	22

Most small companies with annual sales of less than $5 million employ internal accounting staffs of 3 or less, while larger company staffs range from 6 to 16. Companies with smaller accounting staffs also spend less for outside services and are more likely to employ sole practitioners or local firms than regional or national accounting firms.

HOW ACCOUNTANTS LOOK AT SMALL BUSINESS

Typical client (annual sales $)	Type of accounting firm				
	Sole prac.	Local	Reg'l.	Nat'l.	Big Eight
	Percent of respondents				
Under 100,000	4%	1%	0%	0%	0%
100,000-499,999	22	16	14	0	0
500,000-999,000	34	29	14	0	0
1 mil.-1.9 mil.	17	21	21	30	6
2 mil.-4.9 mil.	18	20	15	20	18
5 mil. or more	5	13	36	50	76
Average ($ mil.)	$1.3	3.1	5.4	6.0	13.8

To most local accounting firms, "small business" means a company whose sales are less than $5 million. By contrast, most national and Big-Eight firms define small companies as those with sales of less than $20 million. The local accountants' small business clients average $3.1 million in sales; the Big Eight, $13.8 million.

public accountant for personal needs.

3. How often should you talk with your accountant? The answer: whenever the need arises. And for most small businesses that's no more than once a month. While one out of three small companies is in touch with its accounting firm on a weekly basis, most of them talk with their public accountants about every four to six weeks. Among respondents to the INC. survey, 57% report 30 days or more between contacts, with the average frequency running 39 days.

More than half of the companies said public accountants were their No. 1 advisers.

Although lack of communication is a source of dissatisfaction among small businesses, less than 1% of the survey participants cited availability of the accountant as a problem. The more important question, therefore, is how often your accountant should talk with you. If the communication is always a one-way street, it's time to evaluate the entire relationship.

4. What type of accounting firm do you need? The accounting profession suffers from what can only be described as "Big-Eight syndrome," a disorder that suggests bigger means better. Fortunately, it's not necessarily contagious. While the prestige of a multinational public accountant may impress your banker and attorney, the horsepower and expense that such services represent may be impossible to justify. Size is important only to the extent that it represents sufficient staff to meet your needs.

If your sales have topped $25 million, if your accounting needs are highly complex, or if you're moving toward public ownership, a national or Big-Eight accounting firm may be the best bet. Otherwise, smaller companies generally stick with smaller accounting firms.

The majority (56%) of the respondents to INC.'s study deal with sole practitioners or local accountants. Another 26% rely on regional accounting firms. Only 18% indicate use of a national or Big-Eight organization. Not surprisingly, the last group of respondents includes 80% of the companies with sales of $25 million or more. But it also represents a sprinkling of companies with sales of less than $5 million and even a few whose sales are under $1 million. Such figures testify to the inroads being made by accounting's giants.

All of the Big Eight now boast separate small business staffs. Overall, half of the national firms responding indicated

HOW—AND HOW MUCH—ACCOUNTANTS ARE PAID

	How Accountants Are Paid				
	Hourly	Flat fee	Retainer	Negotiated fee	Other
Annual company sales	Percent of respondents				
Under $1 million	63%	30%	7%	2%	2%
$1 million–$2.9 million	58	35	7	2	2
$3 million–$4.9 million	63	29	11	3	4
$5 million–$24.9 million	64	25	10	7	2
$25 million +	52	18	12	21	–
Percent of all respondents	61%	30%	9%	4%	2%

	How Much Accountants Are Paid						
	Under $1,000	$1,000-$2,999	$3,000-$4,999	$5,000-$9,999	$10,000 $19,999	Over $20,000	Average annual fee
Annual company sales	Percent of respondents						
Under $1 million	22%	44%	16%	12%	5%	1%	$3,000
$1 million–$2.9 million	6	28	25	25	14	2	$5,300
$3 million–$4.9 million	1	13	28	29	19	14	$10,600
$5 million–$24.9 million	1	7	7	19	33	33	$16,600
$25 million +	–	–	–	7	11	82	$42,600

Regardless of company size, the majority of smaller businesses pay their public accountants by the hour. The larger the business, the bigger the tab. Among the smallest companies, the annual accounting bill averages $3,000, while the largest firms incur accounting fees that top $42,000.

PICKING AN OUTSIDE ACCOUNTANT

Types of firms used, and how they're chosen

Type of accounting firm used	Percent of respondents
Sole practitioner	16%
Local	40
Regional	26
National (other than Big Eight)	8
Big Eight	10
Top 10 factors*	
1. Personal contact	41
2. Reputation	36
3. Prior relationship	25
4. Recommended by banker or attorney	21
5. Recommended by other clients	16
6. Location	13
7. Range of services	12
8. Industry expertise	9
9. Fee	7
10. Small business's parent company	3

**Total exceeds 100% due to multiple responses*

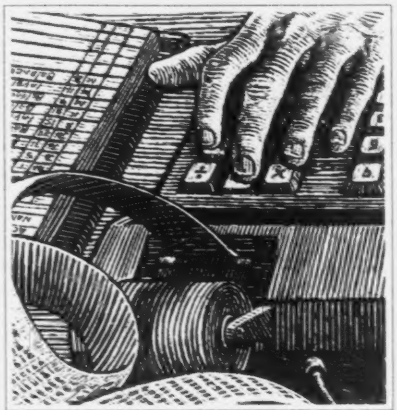
Although 18% of smaller companies surveyed retain national or Big-Eight accounting firms, the majority (56%) rely on either sole practitioners or local firms. The two biggest influences on small business's choice of public accountants are personal contact and reputation of the firm.

that they offer discrete small business advisory services. Among the national accountants, the average small business client is a company with sales of $6 million, while among the Big Eight, the smaller client is more typically a company with sales of about $14 million.

Few local or regional accounting firms seem to have separate small business staffs within their organizations. Most of these firms consider themselves small business specialists to begin with: Four out of five of their clients are small companies, typically ranging in size from $1.3 million for sole practitioners to $5.4 million for regional accountants.

Boding well for small business and reflecting the intensified competition for small company clients, 94% of the accountants responding to INC.'s survey plan to expand their small business services in 1982.

5. What services should you be using? For 9 out of 10 small companies, outside preparation of tax returns and financial statements is standard. Beyond that, close to half of the small businesses responding to INC.'s survey also rely on their public accountants for tax planning and auditing services.



Not surprisingly, the use of auditors is directly related to company size. Only 1 out of 3 firms with sales of less than $1 million has its statements audited, while close to half (48%) of those in the $3-million-to-$5-million category obtain audits. The number rises to 7 out of 10 companies in the $5-million-to-$25-million sales range, and for those with sales of more than that, independent

HOW ACCOUNTANTS WOULD CHOOSE AN ACCOUNTANT

Criteria ranked most important	Percent of accountants
Personal attention	30%
Reputation	17
Experience	16
Range of services	13
Knowledge of industry	5
Professional competence	5
Quality of service	4
Ability to communicate	3
Accessibility/availability	2
Adequacy of trained personnel	2
Integrity/confidentiality	1
Creativity in planning	1
Timely completion of work	1

Accountants stress personal service, reputation, and experience as the keys to selecting an outside firm. Ironically, timely service—the factor that concerns small businesses most—ranks as the professionals' least important consideration.

COMING TO TERMS WITH ACCOUNTANTS

Like most specialists, accountants have their own set of acronyms and terms. Here is a glossary of the accounting profession's most common ones.

Big Eight: The eight major multinational public accounting firms. Listed alphabetically, with number of U.S. offices in parentheses, the Big Eight includes Arthur Andersen (65); Arthur Young (84); Coopers & Lybrand (85); Deloitte Haskins & Sells (105); Ernst & Whinney (116); Peat, Marwick, Mitchell & Co. (100); Price Waterhouse (69); and Touche Ross (77).

CMA: Certificate in Management Accounting. The CMA is granted by the NAA's Institute of Management Accounting to management accountants who meet certain educational standards, pass a five-part exam, and have at least two years of related professional experience.

CPA: Certified Public Accountant. A CPA is an accountant who has passed certain state requirements, including education, work experience, and an examination prepared by the AICPA and administered by the state.

FASB: Financial Accounting Standards Board. The FASB is an independent body maintained by the Financial Accounting Foundation in Stamford, Conn. Founded in 1972, its purpose is to define, improve, and promote accounting and reporting standards. The board is currently studying the need to develop different standards of financial reporting for small companies.

GAAP: Generally Accepted Accounting Principles. These are the conventions and rules that define accepted practice in preparing general-purpose financial statements.

MAS: Management Advisory Services. This is the term CPAs commonly use to describe their consulting services.

PA: Public Accountant. A PA is an accountant who may meet certain state requirements, is usually registered in the state, but is not certified—i.e., has not passed the Uniform CPA exam.

Major Professional Groups

AAA: American Accounting Association. This is an organization for promoting research and education in accounting. Based in Sarasota, Fla., the AAA has 12,000 members, most of whom are academics.

AICPA: American Institute of Certified Public Accountants. A national society for CPAs, this group prepares and grades the CPA exam for state licensing bodies. With headquarters in New York and 175,000 members, the AICPA is the oldest and largest group in the accounting profession.

NAA: National Association of Accountants. Composed of management accountants, this New York–based group has 100,000 members.

NCCPAP: National Conference of CPA Practitioners. This is a new organization for local and medium-sized accounting firms. Founded in 1979 and based in New York, the group now has about 1,000 members.

NSPA: National Society of Public Accountants. Based in Alexandria, Va., the NSPA is a professional society of 16,000 public accountants.

All five groups above are represented among the 440 respondents to INC.'s survey of accountants. The largest number of respondents belong to AICPA (90%), followed by NCCPAP (27%), NAA (25%), NSPA (4%), and AAA (2%). The total exceeds 100% because some accountants belong to more than one organization. More than 7 out of 10 accountants who responded to the survey also indicated membership in state societies. The participation in state professional groups ranged from 77% of the local accountants to 28% of those representing Big-Eight accounting firms.

audits are a standard procedure.

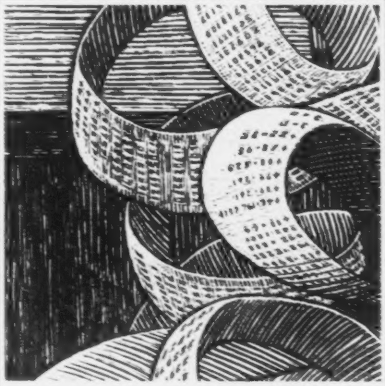
The rest of the services used by small business range from help in designing internal accounting systems to capital investment analysis and evaluation of compensation programs.

In weighing your needs for accounting services, consider the five basic benefits any accounting firm, regardless of size, should provide your company: 1) competent tax assistance; 2) better cost control; 3) order in your accounting system; 4) credibility in your statements; and 5) compliance with the law. Those are the basic payoffs that should govern not only your choice of services but the determination of their value.

6. What should you be paying your accountant? Among companies with sales of less than $1 million, the average annual accounting fee is about $3,000. The tab jumps to $5,300 for companies in the $1-million-to-$3-million sales category, and to $10,600 for those in the $3-million-to-$5-million group. Above that size, the annual fees average anywhere from $16,600 to $42,600.

Accountants responding to the INC. survey indicated that the average annual fee paid by their small business clients is $4,373. The figures range from $2,590 billed by sole practitioners to $13,058 among the Big-Eight accountants.

Overall, the INC. study shows that fees are not a major factor in the relationship between small companies and their accountants. While accounting charges could be lower and fee structures could be clearer, very few of the respondents indicated that fees influence the selection or retention of their public accounting firm. Almost two out of three small companies compensate their accountants on an hourly basis; the rest rely on a flat-fee arrangement.



The new tax law is a good test of your accountant's competence and reliability.

Taking a cue from the banking industry, perhaps, 19% of the public accountants report that they offer preferential rates for small companies. Such rates take the form of reduced fees for start-ups and initial clients, special "introductory" rates, and, in some cases, small-business discounts.

In the final analysis, your accounting costs should reflect the quality of services performed. If the fee seems high, weigh it in terms of the "product" you're getting. If you're getting better financial statements and improved tax work, chances are the higher tab can easily be justified.

7. When should you change accountants? Unlike some larger corporations, small business does not make a practice of rotating accountants. Some 39% of the respondents to INC.'s survey report that their present accounting firm is the *only* accounting firm they have ever had. Among the 61% who have had more than one accountant, 7 out of 10 have changed firms only once or twice. On average, the survey participants have retained their present accountants for more than 8 years. Among the larger companies, where one might expect changes in accountants due to company age and growth, the average period of service is more than 10 years.

The lack of turnover is testimony to the value of retaining an accounting firm that knows your business. It also suggests that the real question is not *when* should you change accounting firms, but *why*.

THE 10 BIGGEST GRIPES ABOUT ACCOUNTANTS

Source of dissatisfaction	Percent of respondents
1. Timely service	35%
2. Reasonable & clear fee structure	22
3. Turnover of professional staff	20
4. Services beyond standard reports	19
5. Knowledge of client business/industry	18
6. Communication & rapport	18
7. Technical knowledge/expertise	18
8. Limited staff	15
9. Orientation toward larger corporations	10
10. Ability to provide clear/concise reports	8

Small businesses cite slow service, confusing fees, and high turnover as the biggest problems in dealing with their outside accountants. Among smaller complaints: ability to keep up with changing regulations and the tendency to be too conservative.

HOW OUTSIDE ACCOUNTANTS ARE USED

Tax help tops the list

	Annual company sales				
	Under $1 mil.	$1 mil.-2.9 mil.	$3 mil.-4.9 mil.	$5 mil.-24.9 mil.	$25 mil. or more
Accounting services used (ranked by total mentions)	Percent of respondents				
Preparation of tax returns	93%	91%	90%	84%	52%
Preparation of financial statements	77	73	72	51	27
Audits of financial statements	32	46	48	71	88
Tax planning	42	51	55	49	39
Review of tax returns	44	46	42	46	49
Preparation of government reports	38	40	37	19	15
Accounting systems design	32	30	25	17	15
Help with employee benefits plans	21	23	27	22	12
Accounting systems implementation	17	20	13	4	3
Forecasting & long-range planning	12	14	17	11	9
Help with loan application	12	15	15	8	6
Evaluation of data processing	5	10	16	15	21
Capital investment analysis	9	10	10	10	3
Design of financial analysis systems	8	9	8	7	3
Evaluation of compensation practices	6	9	7	7	3
Other (bookkeeping; payroll; personal)	3	2	0	3	6

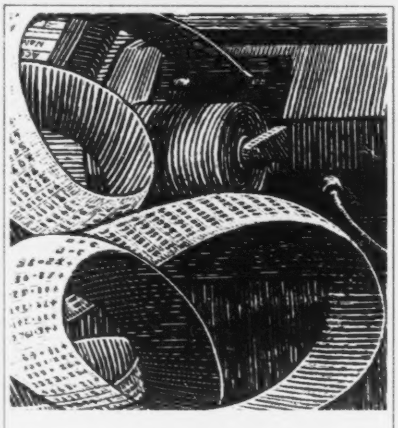
Preparation of tax returns and financial statements tops the list of accounting services used by smaller businesses. While the figures show a direct relationship between company size and audit activity, they also reveal that size has little to do with the limited use of accounting services tied to long-range planning, data processing, and compensation practices.

Many companies rotate accountants as a matter of policy, to generate new ideas and keep the professional on his toes. If all you're getting out of your accountant is tax returns and financial statements, if your accountant thinks only as an auditor and not as an adviser, then a switch probably makes sense. Change for the sake of change, however, is neither productive nor profitable.

Small companies should evaluate their accountants at least once a year to identify anything that may justify a change. The business may simply have outgrown the accountant's capabilities. Is your accountant, for example, keeping pace with your company's needs for more sophisticated advice on matters such as data processing, inflation management, new cost controls, and benefit packages? If your accountant has a thorough knowledge of your business and continues to serve as a sounding board for top management, then there is little merit in making a change.

8. How should you choose an accountant? Suppose a switch is recommended: What guidelines should you use to select a new accounting firm? Small business executives and public accountants agree that the three most important criteria are personal attention, reputation, and experience. Each of these factors, in turn, translates to several critical considerations.

Personal attention, for example, should be synonymous with commitment, compatibility, and responsiveness. Will the principal of the accounting firm be directly involved in your business? Will you and your staff be comfortable with the individuals who will actually be doing the accounting work? Responsiveness should be measured not only in terms of how long it takes the accountant to return phone calls but what it takes to get him out of his office. If you plan a special year-end tax meeting, for example, how much notice will you have to give the accountant to assure that he'll be there to sit in on the session?



The accounting profession suffers from "Big-Eight Syndrome"—bigger means better.

Reputation—the second most important criterion—has little to do with prestige. It's a matter of how bankers, attorneys, and other businesses in your community regard the accounting firm. And don't forget to get a reading on how the accountant stands within his own profession.

Finally, experience counts. What does the accountant know about your industry—specifically, small business in your industry? A current client list will help answer that question, but it is also one that should be addressed personally by those who will be working with your company. Assume that the professional is fluent in accounting and finance; the important question is whether or not he can speak your business's language.

Your accountant should be someone you can trust, someone who understands how your business operates, and someone who is willing to listen and respond with ideas. When you find a public accountant who fits that description, chances are you've found your best professional adviser.

Bradford W. Ketchum, Jr., is a senior editor at INC.

THE FACTS BEHIND THE FIGURES

This article represents the first in a series of special reports on small business and the professions. It summarizes a national study of smaller companies and their public accountants. The primary research for the report was conducted in November and December, 1981. It included two mail surveys supplemented by dozens of telephone interviews with a cross section of small business executives and public accountants.

A four-page questionnaire was mailed to a random sampling of 4,995 INC. subscribers, followed by a two-page questionnaire sent to a random sampling of 2,058 public accountants. Excluding undeliverable and incomplete returns, the net response rates were 20.4% and 21.8%, respectively. Some 993 subscriber returns and 440 accountant returns were then delivered to an independent computer facility for tabulating and 46 cross-reference summaries.

The subscriber respondents represent all 50 states and the District of Columbia, 24% of them with headquarters in the Northeast, 13% in the Southeast, 40% in the Central region, and 23% in the Mountain/Pacific states. Separated into seven industry categories, the majority of respondents are in manufacturing (32%) or wholesale/retail businesses (25%). Other major groups include business services (17%), professional services (13%), and construction/real estate (7%).

The accountant respondents represent 47 states and the District of Columbia; 32% of them have headquarters in the Northeast, 13% in the Southeast, 36% in the Central region, and 19% in the Mountain/Pacific states. While more than 90% of the respondents are Certified Public Accountants, about three out of four represent smaller accounting firms with one office and no more than three partners.

Complete results of the INC. surveys of subscribers and public accountants will be made available. For further information, send a written request to: Bradford W. Ketchum, Jr., INC. Magazine, 38 Commercial Wharf, Boston, MA 02110.

Vital statistics of the two respondent groups in this first study include the following:

Subscribers (993)	
Avg. annual sales ($ mil.)	$5.1
Avg. number of employees	62
Privately held corporation	84%
Publicly held corporation	6%
Proprietorship	7%
Partnership	3%
Use public accounting firm	89%
Accountants (440)	
Sole practitioner	34%
Local	46%
Regional	8%
National	3%
Big Eight	9%
Under 50 employees	83%
Median no. of clients	269

Next month, INC. will publish Small Business and the Professions/II, summarizing a national study of smaller companies and their attorneys.

THE BUCK STOPS HERE *(from page 156)*

But we have had successful past experience with trust funds. It's unlikely, for instance, that we'd ever have built the interstate highway system if a trust fund hadn't been set up to finance it from specific revenue sources. Each administration would have found different and, by its lights, more important things to do with the money.

There's no reason the same principle can't work for small business. If it were thought advisable, the trust fund could be set up outside the control of the executive branch, further away from the political process.

Some companies are selling out to "white knights" in order to avoid being taken over by less desirable merger partners.

To do this, we could replace the SBA by a quasipublic, independent corporation run by a board of businesspeople with special skills and experience in small business. The board would be a bipartisan group, some of whom would be named by the president, some by the Senate majority leader, and some by the Speaker of the House. Directors would serve staggered terms, making it more difficult for a new president to make these appointments political footballs. The employees, like those in the Federal Reserve, would not fall under civil service regulations.

A similar effort to renew or recycle enterprise could be applied to international megamergers. If we set a merger tax in motion, we would certainly have to impose the tax on foreign firms that acquire companies in the United States. But it would be even better to work out a joint tax with other countries, particularly those with whom we do a lot of business. We could amend existing tax treaties in order to impose a tax on international mergers and acquisitions, no matter which country's firm initiated the acquisition.

The two countries involved would divide the tax proceeds according to the percentage of assets of each country's firm that went into the merger. Or, best of all, they could both use the proceeds in a jointly administered fund to support small business import and export programs or joint ventures between smaller firms in the two countries.

We might get even tougher if a foreign government took control of a U.S. firm, as in the case of the recent acquisition of Texasgulf Inc. by Elf Aquitaine Inc., an oil company controlled by the French government. These acquisitions happen more often than most Americans think.

There's no question that one of our stickiest problems internationally would be in dealing with companies owned or directly controlled by foreign governments. But maybe that's the place we most need a tax—or a total ban.

On the domestic front, we could eventually take stronger measures to make those who profit most from megamergers share more of their gains with the rest of us.

Most megamergers, for instance, involve the use of borrowed money. The interest on that debt is now tax deductible. The government could—and probably should—make this interest nondeductible.

We could also make nondeductible the handsome fees paid to investment bankers, lawyers, accountants, and other professionals for their services in facilitating megamergers. We could make it up to these professionals by offering reduced taxes on fees earned from the creation of new, independent businesses by divestiture or spinoff.

We might also impose a stiff surtax on the capital gains made by any stockholder—whether an individual, a company, or a fund—from megamerger profits. The tax would not apply if the stock had been held for, say, at least three years. This surtax would surely cool the megamerger ardor of arbitrageurs and pension fund managers.

As Arthur Burck, a leading merger and acquisition practitioner, pointed out last year in the *New York Times:*

"It is ironic that the taxpayers have been subsidizing the damage and wreckage caused by giant mergers. Invariably these deals depend on tax-free exchanges of stock and/or the tax deductibility of interest on the huge borrowings needed to float the deal. So half the carrying charges are borne by the United States Treasury.

"The solution, of course, is simple: Remove the tax incentives that have so long fueled giant mergers. In that way the activity will shift to the small and medium-sized companies. That is the sector where mergers are needed to keep our capitalism dynamic, to restore the imbalance caused by the burgeoning bigness of past giant mergers."

If all else fails, we could take the step of creating a new bureaucratic tribunal that would be charged with sorting out the "good" mergers from the "bad" ones. Unless and until the president and Congress make our antitrust laws less costly and more effective, few, however, will be keen to adopt that solution.

The one thing we ought not to do is hide any longer from the problem of economic concentration furthered by these giant mergers. If there is a backlash against business because of these mergers—and there will be sooner or later—it will hurt all business, small as well as large.

One thing we ought not to do is hide any longer from the problem of economic concentration furthered by these giant mergers.

To get moving in the direction suggested here will take some attitude changes. Too many of us have yet to recognize the common danger represented by excessive size in government agencies and in government-sized businesses (those with over $5,000 employees). While they differ in many ways, each reduces economic diversity and the size of the independent sector.

National opinion has already swung—and swung hard—against endless government growth. In 1981 we saw the first small drop in employment at all levels of government. This year we must begin to arrest the growth of government-sized business if we are to encourage the largest number of employers in our economy.

James Madison once wrote to Thomas Jefferson that the only basis on which the people could control the powerful was "divide and rule." He made it plain that he was talking about privately based power as well as the power rooted in government. We need to limit the potential power of government-sized business well *before* it affects the practice of free competition that obsesses antitrust practitioners.

If we take moderate, small steps in time, we may not have to take more drastic steps later. ☐

MILTON D. STEWART: THE BUCK STOPS HERE

HOW TO MAKE MEGAMERGERS WORK FOR EVERYONE

The time has come to face up to the problem of "megamergers."

I define a megamerger as any transaction that results in a business with at least $100 million in total assets. This business can be created either from the merger of two giant firms or from one giant firm acquiring a small or medium-sized company.

W.T. Grimm & Co., which keeps book on public mergers and acquisitions, called 1981 "the year of the mega-deal." Grimm measures mergers by the cost to one company of acquiring another. Of the nearly 2,400 mergers it recorded in 1981, 113 cost over $100 million to engineer. Twelve of these deals cost over $1 billion. In contrast, only 4 cost this much in 1980.

The number of these "mega-deals" has climbed steadily since 1975, when there were only 14 in the over-$100-million category. Out of the total 1981 merger cost of $82.6 billion, $38.4 billion came from the 12 over-$1-billion deals.

However dizzying these numbers are, it would not be easy—or necessarily desirable—to wave a legal magic wand and make all megamergers stop or go away. Not all mergers or acquisitions are bad. A few are essential if businesses are to be large enough to survive in some industries. Some represent legitimate efforts to achieve economies of scale in production, research, or marketing.

Year	No. of mergers costing $100 million or more	Year	Total dollar value paid for all mergers ($ billions)
1975	14	1975	11.8
1976	39	1976	20.0
1977	41	1977	21.9
1978	80	1978	34.2
1979	83	1979	43.5
1980	94	1980	44.3
1981	113	1981	82.6

But many of the megamergers don't make a lick of business sense. Experts have estimated that as many as 7 out of 10 of them fail. Some take place simply because profit-chasing sharks, who couldn't care less about the companies involved, want to make a quick buck. The game of megamergers is itself forcing some companies to sell out to "white knights" in order to avoid being taken over by less desirable merger partners.

And whether they're good or bad, there's no question that megamergers reduce the number of producing, employing units in the country. We can't continue to assume that economic diversity will be maintained automatically—that the net increase of new, smaller firms will offset this growing concentration.

As a reasonable first step toward limiting the negative effects of these giant mergers, I propose an "enterprise renewal" or "enterprise recycling" tax. This tax would skim some of the profits from megamergers at the big-dog end of the economy for reinvestment in the business puppies at the small end.

The tax would work this way: Each time a deal took place that involved or resulted in a company with more than $100 million in assets, the government would collect a one-time tax from that firm. The tax would be levied regardless of whether the merger or acquisition involved cash, stock, notes, bonds, or bottle-tops; the rate would increase with the size of the merger.

The proceeds from this tax would go into a "Small Business and Entrepreneurship Trust Fund," which would be used to relieve taxpayers of the costs of present and future federal small business programs. A 1% tax on last year's 12 over-$1-billion deals would have been enough, for example, to cover the administrative costs of the Small Business Administration for a year and a half.

Monies could also be used to cover any losses under guaranteed loan programs or to replace funds now borrowed by the Small Business Administration from the Federal Financing Bank for loans to small business investment companies.

The managers of the budget and Treasury will probably oppose such a special-purpose fund. They hate to lose any revenue from their general fund and like to have the authority, in the name of the president, to determine how revenues are spent.

(continued on page 154)

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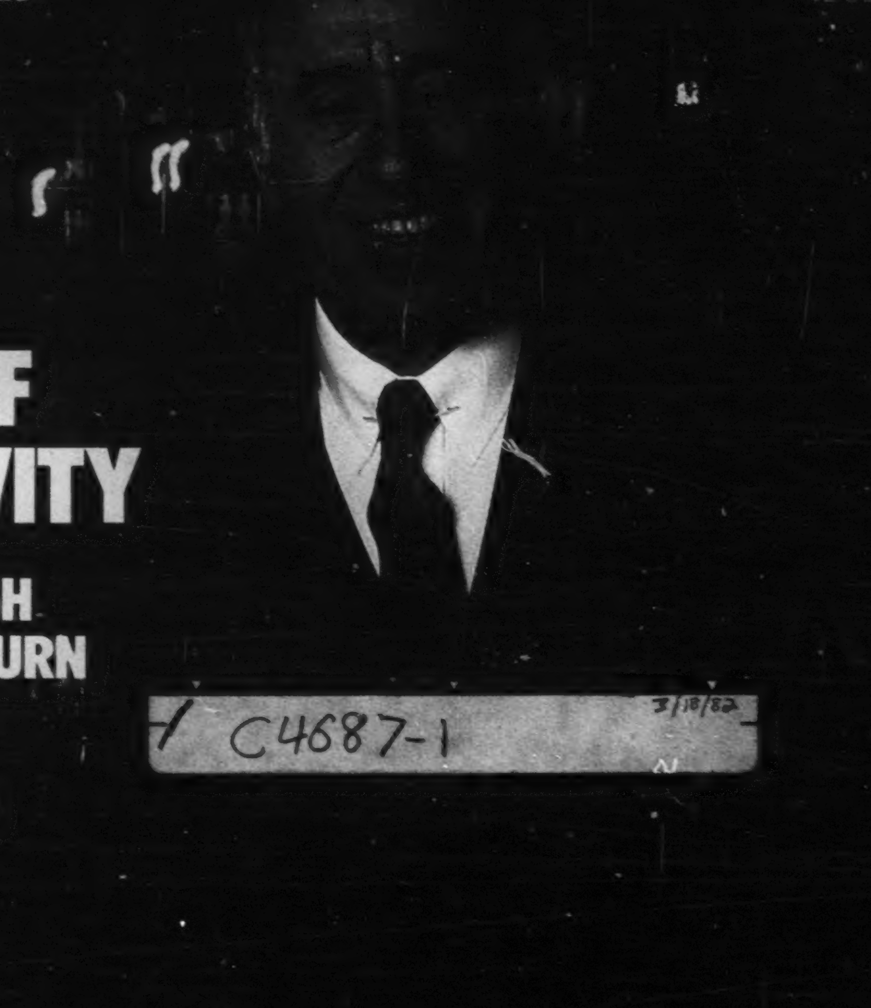

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THE KING OF PRODUCTIVITY

MONITOR YOUR CASH FOR MAXIMUM RETURN

TELL EMPLOYEES WHERE THEY STAND

SURVIVING A MARKET DOWNTURN

Arthur
Imperatore
of A-P-A
Transport

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Cover photo
Steven Mark Needham

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THE GREENING OF NEW MEXICO

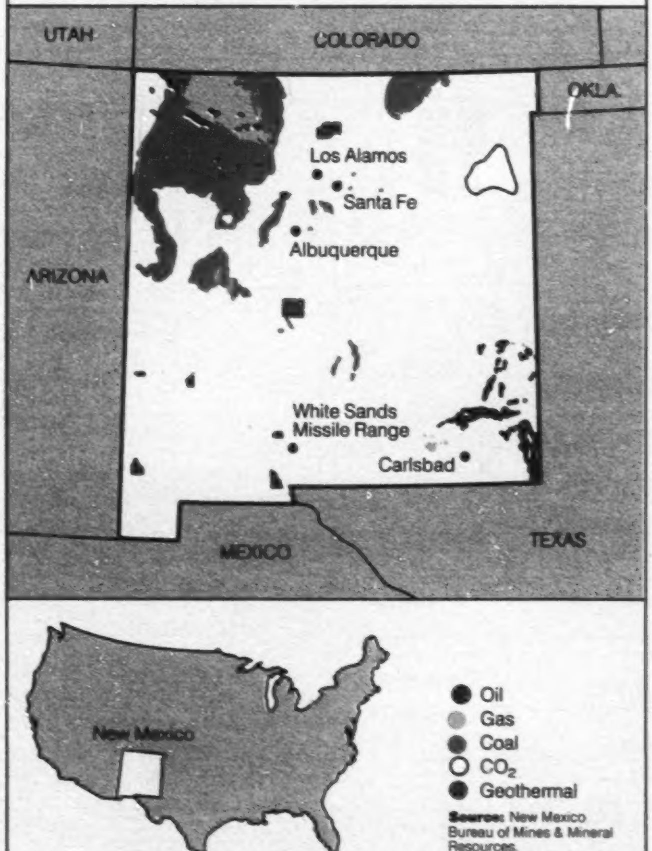
Small business diversity could be the key to fast but sensible growth for the "Land of Enchantment" in the '80s.

By Sharon Frederick

When he decided to expand his sales effort to the western half of the United States, Allan Thieme looked at plant sites in Arizona, Colorado, Oklahoma, Utah, and even Texas. None had what he wanted.

Then he found Albuquerque, N. Mex. It offered good interstate transportation, plenty of potential employees at wages he could afford, and the promise of better labor relations than he had in heavily unionized Michigan, where he started his now-$8-million company, Amigo, in 1967. A year ago, he followed the lead of companies like Honeywell and Levi-Strauss, and set up shop in Albuquerque.

New Mexico's Energy Riches



Source: New Mexico Bureau of Mines & Mineral Resources.

New Mexico's 78 million acres produce more energy than it uses.

But 1,500 miles away, Marie Thieme and three of their five children are still working at Amigo's Bridgeport, Mich., plant. There 90 workers turn out the three-wheeled battery-operated "friendly wheelchairs" that Al first designed for Marie when she was diagnosed as having multiple sclerosis. Though Albuquerque is ideal for Thieme's company in many ways, it doesn't provide him with the skilled manufacturing workers or the support operations like machine shops that were so plentiful in Michigan. So he manufactures his wheelchairs in Michigan and assembles those for the western third of the country in Albuquerque.

Albuquerque also hasn't provided him with the money he needs. New Mexico has long had a tight money market, and Albuquerque's reputation as the Southwest's latest boomtown has made some of its banks and investors afraid that too much growth will come too quickly. After 10 months of looking for the $800,000 he needed to build a plant in Albuquerque, Thieme finally gave up. He signed a two-year lease for office and plant space. "If things don't loosen up by the time the lease expires," he says, "I just won't expand as much or as quickly as I'd hoped."

Despite Albuquerque's drawbacks, Thieme remains enthusiastic about the city's potential. He likes its mild four-season climate and friendly people. And he understands why New Mexicans don't want their largest city (population 332,000) to grow too fast. "It's hard working with less money than I'd hoped to find," he says, "but as a businessman with a stake in Albuquerque, I don't want it to become overcrowded and overindustrialized like Denver. I came to Albuquerque to avoid places like Denver and Phoenix."

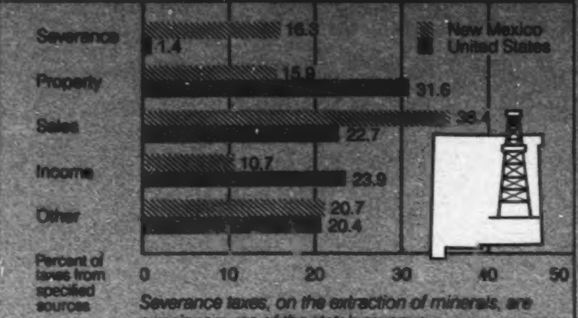
New Mexico doesn't yet have the scars that neighboring states like Arizona and Colorado bear after two decades of rapid growth: overcrowded major cities, pollution, water shortages, and escalating costs. Until very recently, New Mexico has been a place to ski, to hike, or to search for Indian artifacts, but not a place to do business.

But now, New Mexico's low level of economic development is being seen as a plus rather than a minus. It means relatively abundant and inexpensive land, labor, water, and energy. New Mexico's 78 million acres produce more energy than its 1.3 million people use: The state exports about 60% of its oil and over 85% of its natural gas. As a result, the state is no longer poor—at least on the books. The oil-and-gas industry alone pours over $1 million a day into the state coffers in land rental fees, royalties, and severance taxes on the extraction of minerals. Taxes have been cut

Charts by Geoffrey Hodgkinson; Photos by Richard Cross/Gamma Liaison

NEW MEXICO'S ECONOMY AT A GLANCE: ITS POTENTIAL AND PROBLEMS

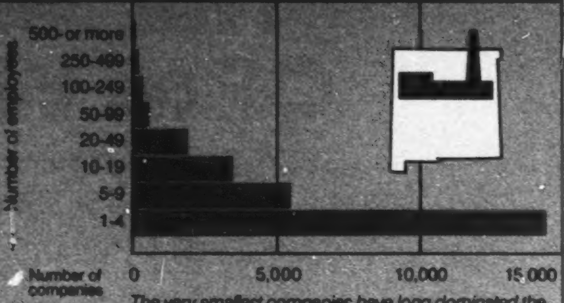
Resources Pay the Bills



Severance taxes, on the extraction of minerals, are a major source of the state's revenue.

Source: New Mexico Taxation & Revenue Dept.

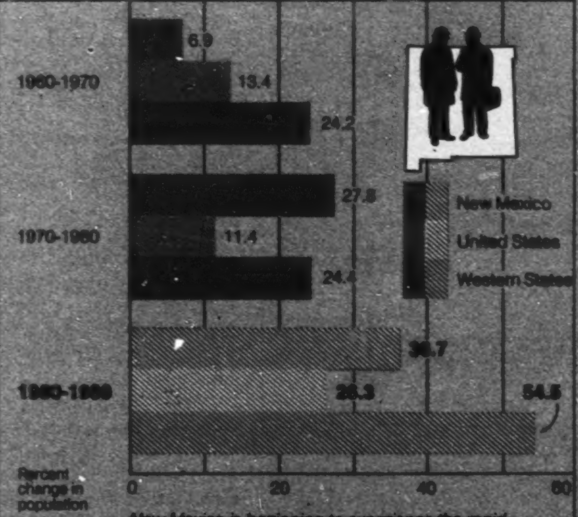
Small Business Provides the Jobs



The very smallest companies have long dominated the state's economy, though that may change fast.

Source: U.S. Dept. of Commerce, Bureau of the Census

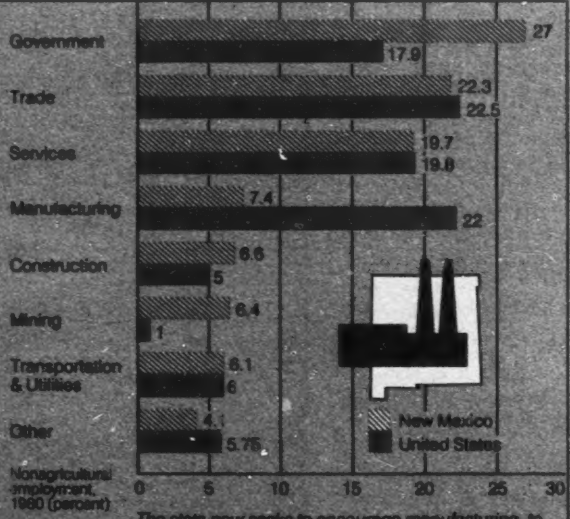
Westward Migration: It Finally Hits New Mexico



New Mexico is beginning to experience the rapid growth its Sunbelt neighbors have already undergone.

Source: U.S. Dept. of Commerce, Bureau of the Census

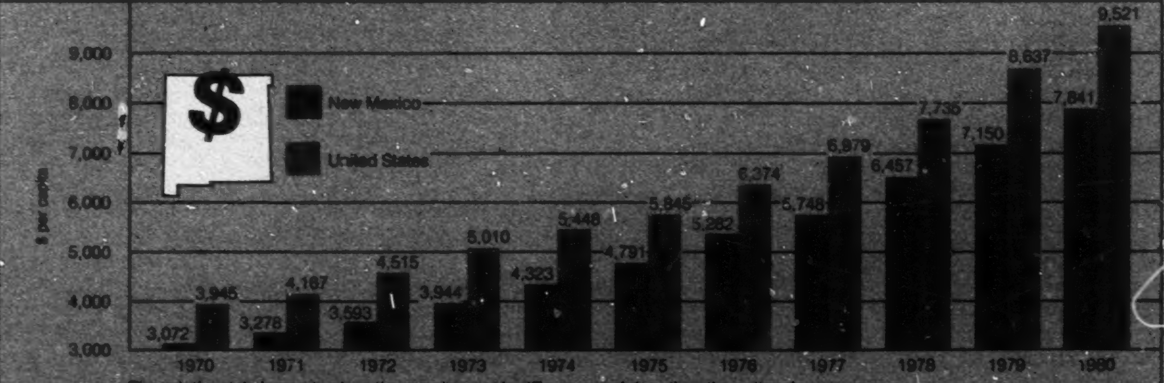
Where People Work



The state now seeks to encourage manufacturing, to create a more diversified economy.

Source: New Mexico Employment Security Dept.

How Personal Income Stacks Up



Though the state hopes to close the gap, its people still earn much less than the national average.

Source: U.S. Dept. of Commerce, Bureau of Economic Statistics every year since 1972, so that a New Mexican's state and local tax bill is now one of the nation's lowest.

"To be here now is exciting, challenging, and frustrating," says Lee Zink, University of New Mexico economist and president of the Greater Albuquerque Chamber of Commerce. The major challenge faced by New Mexico is to establish a stable, growing economy that doesn't depend solely on the state's natural resources.

One way to meet that challenge is to create a healthier and more diverse small business sector, Zink says. Since the 1940s, New Mexico's economy has depended on local, state, and federal government employment and spending, particularly on the complex of weapons and energy research labs, testing facilities, and air bases that have created a small pocket of wealth in north central New Mexico—Los Alamos, Albuquerque, and Sante Fe. Over a quarter of New Mexico's 542,000 workers are employed by federal, state, or local government. Another 40% get their paychecks from groceries, restaurants, department stores, specialty shops, car dealers, and motels. In 1980, that left fewer than 200,000 employed in all other sectors—agriculture, construction, manufacturing, finance, and transportation. Another 40,000 were not working at all: Outside of the boomtowns, where jobs go looking for workers, the unemployment rate is over 20%.

Diversification is vital to New Mexico's growth, and Albuquerque has taken the lead. By 1985, companies like Intel and Motorola will have added about 10,000 manufacturing jobs to Albuquerque's current base of 18,000. And Chase Econometrics predicts the growth will continue: It ranks Albuquerque among the 30 U.S. cities that are likely to have the best job growth during the 1980s.

But this attempt to add more industry will succeed only if Albuquerque develops a small business support structure, such as the machine shops Al Thieme needs. Some in Albuquerque think the key to the city's economic development is to encourage start-ups by people whose technological expertise has been developed in the nearby federal research and testing installations. "We're rich in natural resources and we've mined those," says Raymond Radosevich, professor at the University of New Mexico's Anderson School of Management. "But no one's mined our incredible nucleus of technology. We simply don't have the history of entrepreneurship to go with the technology. People who started in weapons research weren't geared to creating a salable product."

The state is also making efforts to see to it that not all the action is in Albuquerque. "Otherwise," says Jim Covell, head of Albuquerque's industrial devel-

WHAT BUSINESS CAN EXPECT IN NEW MEXICO

What does New Mexico offer smaller companies, particularly when compared to its Sunbelt neighbors? Here are some conclusions, based on data gathered by INC. for its "Special Report on State Business Climates" (October 1981) and from interviews with state officials, economic specialists, and small business leaders.

Labor. This is clearly New Mexico's strong suit. It has the highest unemployment rate (7.4% last year) in the Southwest, and some of the lowest wages and rates of unionization in the country. On the other hand, the rate of immigration to the state is low—only about 20% of the projected population increase of 200,000 over the next decade will be people moving from other states—so companies will have to settle for the skills already available.

Albuquerque has over a third of the state's population and offers its most diverse labor pool, but the influx of major electronics firms means stiff competition for employees. The rest of the state has areas that are "real sleepers for smaller firms that don't mind being a bit isolated, can live without super air service, and can utilize local labor and management," says Saul Grohs, vice-president of Fantus Co., New Jersey–based consultants on plant-site location who evaluated the state for several electronics firms.

Capital Resources. New Mexico has historically been capital-poor. The state has only about a half-dozen venture capital firms, all in Albuquerque, and all but one were started within the last seven years. Banks have typically been closely held and have operated quite conservatively. Total assets of all banks and savings and loans in New Mexico were about $8.7 billion last year. (In Arizona, for example, they were $20 billion.) Of the 14,000 commercial banks in the United States, only 89 are in New Mexico.

But the capital environment is improving, largely because of recent interest in the state by outside businesses and investors. Most of the money that flowed into the state in the past was for mining or real estate deals, but now commercial and industrial ventures are attracting attention.

It's undoubtedly more difficult to get venture financing in New Mexico than in more sophisticated financial centers, but it's not as difficult as New Mexicans think it is, says David Livingston, a former New Mexico banker who now heads an investment firm working in New Mexico, Hawaii, and California. And Edmond E. Pace, also a former banker, now with banking consultants Sheshunoff and Co., says, "My guess is that banks in New Mexico go as far as banks anywhere in making small business loans."

Small Business Commitment. New Mexico's political leaders have traditionally taken a hands-off approach to business. They have made no exceptions for small business, though only about 40 companies in the entire state have more than 500 employees. The state has only one major economic incentive to new or expanding companies, an in-plant training program, and only two major state programs aimed specifically at small firms, the year-old Small Business Development Center and the University of New Mexico's Technological Innovation Center. In INC.'s ranking of the states by small business commitment criteria, New Mexico was 30th—a mediocre showing.

Taxes. Taxes in New Mexico have been cut every year since 1972, and last year's cuts were largest for smaller companies, which now pay 4% on net annual earnings up to $1 million. But it still doesn't stack up well against its neighbors, Texas, Arizona, and Colorado, which made the top 10 in the INC. rankings for favorable tax climate. New Mexico ranked only 30th.

Energy Costs. Though New Mexico is rich in energy resources, a company buying electricity there pays more than companies do in many other states. The state's largest utility went to coal-fired power much earlier than most states, and these rates are paying off that investment. New Mexico's Four Corners–area power plants—one of the largest coal-fired, electricity-producing complexes in the United States—produced enough electricity in 1980 to sell 60% of it to other states. But the high cost of electricity and a climate with a large number of cooling days made New Mexico 42nd on INC.'s ranking of state energy costs.

Quality Of Life. Though this one is difficult to measure, it's clear that New Mexico, or at least Albuquerque, stands out here. Albuquerque's four-season climate is mild, the University of New Mexico is located there, and the city is only an hour away from Santa Fe's cultural center and two hours from Taos's skiing.

Jane Dunn (left) runs a "one-stop service center for small business" in Santa Fe. The Small Business Development Center aids clients like Edie Keeler (right).

opment effort, "jobs are in Albuquerque, so people are forced to move here, and we end up with a huge unemployment problem." State economic development people help communities find their strong suits so they can make an effective pitch to out-of-state companies. Roswell, for example, landed a Greyhound bus-building plant by offering the huge hangars of the former Walker Air Force Base, once a major Strategic Air Command operation, and by touting the city's moisture-free climate. Recently, the city won a $22-million federal grant, allowing it to lend low-interest money for expansion of the plant.

In most cases, however, says the state's economic development director, Albert Dietz, "our best bet will be helping our people start and succeed in their own businesses." The Small Business Development Center, started in March 1981, is a "one-stop service center for small business," according to director Jane Dunn. She sets up how-to seminars in communities throughout the state, and follows up with individual consulting sessions for would-be entrepreneurs.

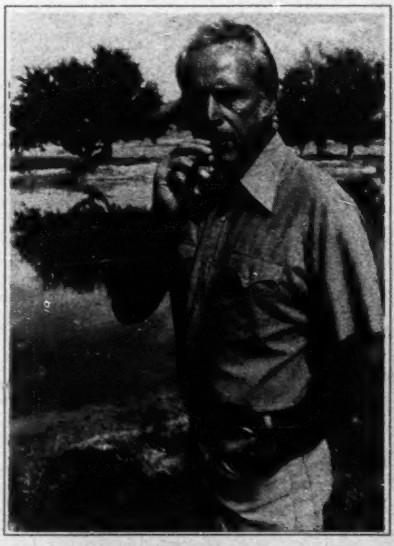
New Mexico's diversity and its ethnic mix complicate any statewide development efforts. "What makes sense for Hobbs, in one of the largest oil-producing counties of the country, doesn't make sense anywhere else," says Dietz. And Lee Zink points out that nearly half the state's population is either Hispanic or Indian, two ethnic groups with strong ties to the land. "The challenge is to find ways for them to remain on the land and still develop economically," says Zink. "The only way to do it is with small businesses."

"One way we can develop a better economy for our tribes," says Floyd Correa, former governor of the Laguna Pueblo tribe, "is to encourage our people to become entrepreneurs." Correa Enterprises, his $500,000 consulting firm, designs computer systems and energy resource development plans. New Mexico's 22 Pueblo, Navajo, and Apache tribes are the largest private owners of proven and potential energy resources in the state. Correa's own reservation is the site of the largest open-pit uranium mine in the world.

The state's Hispanic enterprises are also becoming more diversified. "Ten years ago Hispanics were starting gas stations and retail stores," says Anna Muller, head of the Albuquerque office of the National Economic Development Association (NEDA), a national Hispanic business development organization. "Today they're also starting high-tech businesses, electronics firms, energy firms, and cable-TV stations." One of NEDA's success stories is Nuclear Pharmacy, started by Robert Lee Sanchez in 1974. Sanchez, just out of the University of New Mexico graduate pharmacy program, hit on the idea of "drugstores" that would dispense and deliver radioisotopes to hospitals and then pick up and dispose of the radioactive waste. The company had sales of about $16 million in fiscal 1981 and ranked 48th on the 1981 INC. 100 (See INC., May 1981).

While there's plenty of ideological support for small business in New Mexico, many say that the support that really counts—money—is in short supply. "The legislature is dominated by people who came to power when New Mexico was a poor little state that had to underfund everything," says Jerry Jordan, an economist and former dean of the UNM Anderson School of Management, and now a member of President Reagan's Council of Economic Advisors. "The dominant attitude is, when in doubt, cut taxes."

The legislature has cut taxes every year since 1972, and in the 1981 session it emphasized cuts for firms whose an-



Tight-fisted bankers caused Edward J. Myslik to start a venture capital firm.

nual earnings are less than $3 million. But the legislature did not fund measures that Zink and others see as crucial to the growth of the state's smaller businesses, such as the university's fledgling innovation center. Nor does the state fund a standing committee on either small business or economic development. The only state-funded lure to business is a nine-year-old $1-million inplant training program that provides grants to new or expanding manufacturers.

On the other hand, the state's financial stability is a plus, says Al Dietz: "We have no gimmicks, but we've got a $2-billion state fund that means we can offer a business environment with no surprises like deficits that require new taxes." The state's general permanent fund, fed by land-use fees and royalties, and a newer severance-tax permanent fund now total over $1.5 billion. That money ought to be used more aggressively for economic development, argues Jim Covell: "Unfortunately, the tendency is to build a new building with a legislator's name on it rather than fund a research and development program to spawn new companies."

The large new companies moving into New Mexico are improving the environment for smaller businesses in some unexpected ways. New Mexico has always been capital-poor, and bankers have been able to pick and choose their deals. That frequently meant avoiding high risks, such as start-ups. "Now representatives of big electronics firms are coming to our bankers with forms that ask questions like how many service stations and machine repair shops you have in your community," says Albuquerque businessman Edward J. Myslik, Jr. "Bankers are taking small businesses a lot more seriously as a result." That's quite a change from even four years ago, he says, when Myslik and several business associates launched a small private venture-capital firm. It was only the second in Albuquerque, and the first limited itself to construction projects. "Banks used to send prospective clients to me," Myslik recalls.

New Mexico has everything Allan Thieme needs except money and skilled labor.

Small investors are also coming on the scene in New Mexico. Jim Covell gets a call or two a month from out-of-staters interested in partial ownership of a business or in developing projects such as small commercial buildings. "It's one of the most encouraging steps I've seen," says Covell. "In the past, we were a capital-drain state: More investment went out than came in. As we develop our high-technology manufacturing base, we'll see more people coming in with both ideas and financial resources—those who until now went to Texas or California once they got tired of IBMsville."

As Lee Zink says, "For a long time we in New Mexico have had the poor man's attitude toward the future: There is no future for me; all I can do is be nice to the guy who provides my livelihood. That's no longer the case. We have astounding opportunities. We simply must realize them." □

Sharon Frederick is a Boston–based freelance writer and a former editor at INC.

Robert Lee Sanchez's Nuclear Pharmacy is an INC. 100 company and one of the success stories in New Mexico's Hispanic community. The firm handles radioisotopes for hospitals; it had sales of about $16 million in fiscal 1981.

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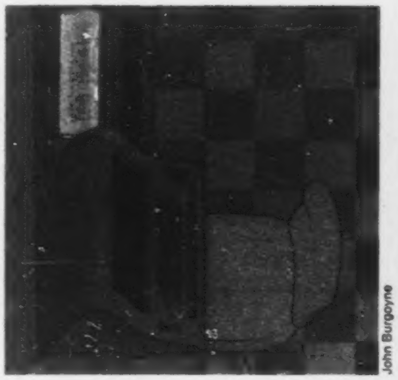
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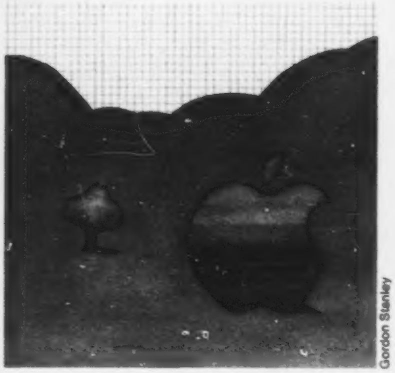
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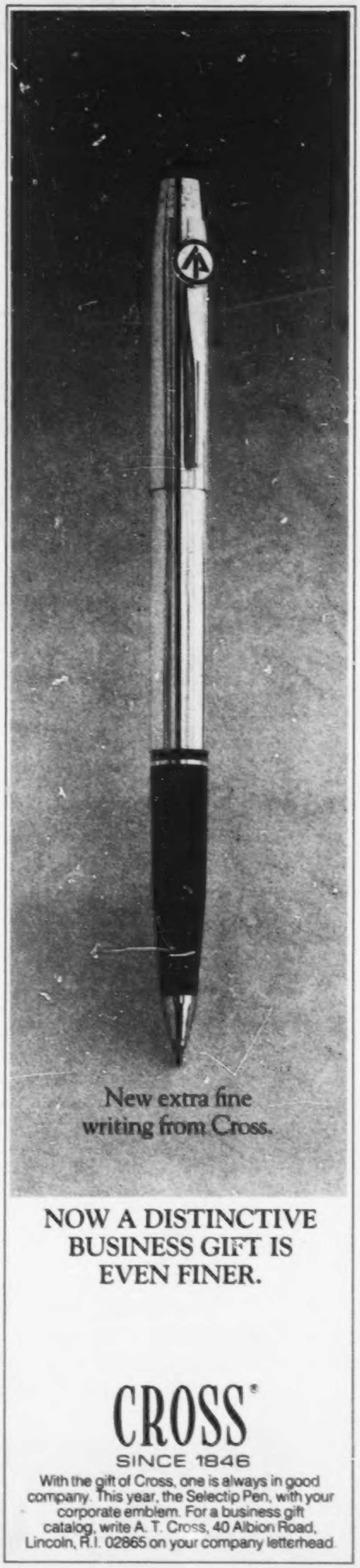

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Cover Story

THE 1982 INC. 100

Despite an ailing economy, America's fastest-growing public companies are keeping a breathless pace.

By Bradford W. Ketchum Jr.

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Battered by a billion-dollar deficit in the auto industry, a pronounced slump in housing activity, and sluggish retail sales, American business found little to celebrate when the books closed on 1981. The nation's 1,000 largest corporations staggered into 1982 with sales running only 4% ahead of inflation and aftertax profits barely matching it.

There is a bright side to the economy of the past year, however, and it can be found in the 1982 INC. 100—the fourth annual ranking of the fastest-growing publicly held smaller corporations in the United States. While the giants posted a 1981 sales gain of about 12%, the INC. 100 companies chalked up a vigorous 77% increase. Similarly, while the nation's 1,000 largest companies mustered a 7% to 8% gain in aftertax earnings, the INC. 100 closed 1981 with a 107% surge in profits.

While the nation's 1,000 largest companies mustered a 7% to 8% gain...the INC. 100 closed 1981 with a 107% surge in profits.

Spectacular as the INC. 100's 1981 performance was, it represents only the most recent installment in a five-year period best described as explosive. From 1977 to 1981, sales of the 100 companies soared by 1,247%, or at an average compound annual rate of 92%. All but two companies that qualified for this year's ranking registered at least a sevenfold increase in sales during the 1977–81 base period.

Led by California's Apple Computer and anchored by New Jersey's Matrix, maker of diagnostic imaging systems, the 100 companies are ranked according to their percentage increase in sales or revenues, based on 1977 and 1981 fiscal year results. Five years ago, the 100 firms averaged $3.7 million in sales, with the majority generating less than $2 million. Only 11 topped $10 million, and none had more than $22.3 million in revenues. Today, the INC. 100's average volume is $49.5 million, with 54 companies surpassing the $25-million mark.

Sporting nameplates ranging from the exotic, such as HemoTec and Healthdyne, to the simple, such as Liz Claiborne and Taco Charley, the ranking represents a diverse range of manufacturing, mining, and service industries. It includes 24 computer and business equipment makers, 11 oil and gas producers, 9 manufacturers in the medical field, 3 restaurant chains, and 2 airlines. The elite group is headquartered in 28 states: California is the front-runner with 17 companies, followed by New York and Texas with 15 each, and Minnesota with 7.

Diverse as they are in industry and location, the INC. 100 share four qualities: youth, innovation, high productivity, and a healthy bottom line. Fifty-six have incorporated since 1972; 89 have incorporated since 1962. On average, the INC. 100 firms have been in business less than 12 years.

Start-ups not long ago, they are now the upstarts on the frontier of high technology and creative services. The list includes pioneers in computer leasing, seismic data processing, technological training, and oil-field services, as well as nuclear medicine, laser scanners, ferrofluidic technology, and video games.

Products of the free enterprise system, the INC. 100 have accelerated competition and outpaced giant counterparts in the country's fastest-growing fields (see "Born to Grow," page 59). Among the 15 INC. 100 companies in the computer industry, for example, the five-year compound average growth rates range from 67% (Compucorp) to 356% (Apple). The INC. 100 contingent in the medical equipment field has pulsed with compound rates of 62% (Matrix) to 226% (Electro-Biology), while the 11 energy producers are not far behind with a range of 74% (Seneca Oil) to 148% (Gulf Energy). Overall, while total sales posted by the nation's 500 largest corporations rose 70% between 1977 and 1981, the INC. 100's sales skyrocketed to a gain of 1,247%.

Using sales per employee as a yardstick, the smaller growth companies generate greater volume per worker than most of their giant counterparts. Last year, for example, Tomlinson Oil and Sterling Pipe & Supply rang up more sales per employee—$2.0 million and $1.5 million, respectively—than any firm on the *Fortune* 500. Other industry standouts include Apple Computer and Cado Systems, which each generated more than $137,000 per worker, compared with IBM's $83,000. On average, the INC. 100 generated $79,152 per employee last year.

More important than employee sales statistics, however, is the growth in the number of employees among the INC. 100. In the past five years, the overall size of the group's work force has soared by 607%—a significant figure compared with the meager 2% increase registered by the top 500 industrials. As a group, the 100 companies have created an estimated 54,000 net new jobs since 1977. Among the 55 companies whose growth has been generated internally and not by acquisition, the increase in number of employees is 620%. In short, their payrolls have expanded more than sevenfold, an achievement that translates into 18,500 new jobs in the past five years.

While the majority of the INC. 100 companies expanded internally during the 1977–81 period, acquisitions have played a role in the growth of 45 firms. Leading the list of acquirers is Chemical Investors, an Indianapolis-based chemical conglomerate that has undergone a dramatic shift from distribution to manufacturing in the past five years. Jumping from a zero base in 1976 to sales of $5.2 million in 1979, Chemical Investors then concocted a leveraged buyout that resulted in the 1980 acquisition of Borden's $32-million Mystik Tape Division. Following two more acquisitions in 1981, the company celebrated the beginning of 1982 with the purchase of $25-million Arno Adhesive Tape.

From 1977 to 1981, sales of the 100 companies soared by 1,247%, or at an average compound annual rate of 92%.

As their P&L statements testify, the INC. 100 firms are as profitable as they are innovative and productive. From 1977 through 1981, total net income for the 100 companies soared by 3,846%. Though 26 companies closed 1977 in the red, only 8 were wrestling with deficits at the end of 1981. More important, 86 posted gains in earnings last year, with net profits at 8.9% of sales, up from 2.8% five years ago. Not surprisingly, among the hardest hit in the loss column last year were Air Florida and Tomlinson Oil, both of whom saw black ink evaporate into losses exceeding $5 million.

Pegging the INC. 100's return on equity is difficult, if not impossible. Small growth companies in general are highly leveraged, and the companies that make up the INC. 100 are no exception. Sub-

INC. 100 sculpture by Nicholas Fasciano; photo on page 49 by Ralph King.

stantial changes in equity due to new stock issues, coupled with the idiosyncracies of calculating return ratios, frequently distort the figures. By INC. estimates, however, the 1981 return on equity among the 100 firms averaged a highly enviable 34.7%.

As with any ranking of elite companies, the INC. 100 raises curiosity about the firms that finished as runners-up and those that were disqualified. At press time, Infotron Systems, a Cherry Hill, N.J., maker of multiplexers and modems with 1981 sales of $22 million and a five-year gain of 583%, emerged as No. 101. Among other runners-up are more than 100 companies that have at least quadrupled or quintupled their sales in the past five years. They include 21 members of last year's INC. 100 (see "Where's the Class of '81?", page 65) and such fast-track performers as Empire Oil & Gas (up 582%), TIE/Communications (581%), and Sykes Datatronics (569%).

Among the companies disqualified, the most noteworthy this year are those that were eliminated because they have yet to establish a five-year sales history or because their 1977 sales were less than $100,000. These newcomers testify to the meteoric growth of emerging companies. Among celebrated companies with limited histories are Pizza Time Theatre, Magnuson Computer, and Kloss Video, none of which were generating sales five years ago. Since 1978, however, Pizza Time Theatre's sales have soared by 10,308% and Magnuson's by 8,473%. Kloss Video, which began developing revenues in 1979, has registered a 1,736% gain in three short years.

> As their P&L statements testify, the INC. 100 firms are as profitable as they are innovative.

The challengers also include at least five notable examples of companies that began their takeoffs in 1977 but had not reached the $100,000 level by year-end. With sales that have since rocketed by amounts ranging from 36,000% to more than 296,000%, the explosive quintet includes Biochem International (up 296,270%, with '81 sales of $4.3 million); Movie Systems (188,002% with sales of $7.8 million); Genentech (81,750%, $21.3-million sales); Petro-Silver (65,027%, $9.8-million sales); and St. Jude Medical (36,061%, $13.2-million sales). Barring an unexpected stall in 1982, all will be among the top newcomers in next year's INC. 100. □

Bradford W. Ketchum, Jr., is a senior editor at INC.

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Trading	Company (Rank)
OTC	Air Florida System** (14)
OTC	Alaska Diversified Resources (85)
OTC	AM Cable TV Industries (49)
OTC	Amarco Resources* (61)
OTC	Andersen 2000* (59)
OTC	Apple Computer (1)
OTC	Aracca Petroleum (72)
OTC	ASK Computer Systems (8)
OTC	Barton Valve (51)
OTC	Bradford Computer (11)
OTC	Bio-Medical Sciences* (4)
AMEX	Blocker Energy (71)
OTC	Cado Systems** (55)
OTC	Centuri (33)
OTC	Chemical Investors (9)
OTC	Chemold* (25)
AMEX	Commodore** (79)
OTC	Compucorp (95)
OTC	Computer Associates Int'l. (40)
OTC	Computer Designed Systems (42)
OTC	CPT‡ (93)
NYSE	Cray Research*** (80)
OTC	Creative Foods* (34)
OTC	C3* (89)
OTC	David Jamison Carlyle (77)
OTC	Dysan* (43)
OTC	Electro-Biology* (2)
AMEX	EnerServ Products (92)
OTC	Ferrofluidics (94)
OTC	Flare (3)
OTC	Flight Transportation* (31)
OTC	Geophysical Systems (58)
OTC	Gulf Energy* (15)
OTC	HBO & Co. (91)
OTC	Health Extension Services* (65)
OTC	Healthdyne (35)
OTC	HemoTec (30)
NYSE	Heritage Communications† (38)
OTC	Hurco Manufacturing* (90)
OTC	Immuno Nuclear (78)
OTC	Intelligent Systems* (82)
OTC	Inter-Tel* (19)
OTC	Interface Mechanisms** (73)
OTC	Intergraph (66)
OTC	Int'l. Game Technology (24)
AMEX	Intertec Data Systems (37)
OTC	Jefferson-Williams Energy (6[illegible])
OTC	Key Pharmaceuticals* (74)
OTC	Kyle Technology (88)
OTC	Lexidata (17)
OTC	Liz Claiborne (36)
OTC	Machine Technology (68)
OTC	Magnetic Head* (28)
OTC	Majestic Electro Industries (64)
OTC	Matrix** (100)
OTC	M.D.C.* (32)
OTC	Micom Systems (12)
OTC	Microdyne (97)
OTC	Miller Tech. & Communications (52)
OTC	Minnetonka* (87)
NYSE	NBI** (20)
OTC	Network Systems* (27)
OTC	Newport Pharmaceuticals Int'l.* (84)
OTC	North American Watch* (99)
OTC	Nuclear Pharmacy* (69)
OTC	Nuclear Support Services (39)
OTC	Nupec Resources (23)
OTC	Nutri/System* (26)
OTC	Omnimedical (56)
OTC	Oxoco (50)
OTC	Pacer Technology & Resources* (41)
NYSE	Paradyne** (81)
NYSE	Pengo Industries (53)
OTC	Petroleum Equipment Tools** (70)
OTC	Printronix** (48)
OTC	Quality Care** (83)
OTC	Reeves Communications** (75)
OTC	Royalpar Industries (45)
OTC	RSI** (10)
OTC	S.A.L. Cable Communications (86)
AMEX	Sage Energy (16)
OTC	Saxon Oil* (62)
OTC	Sea Galley Stores (44)
OTC	Seal Fleet* (7)
OTC	Seisdata Services (5)
OTC	Seneca Oil* (76)
OTC	Service Fracturing (98)
OTC	Shopsmith** (46)
OTC	Sterling Oil of Oklahoma* (23)
OTC	Sterling Pipe & Supply* (24)
OTC	Swanton* (54)
OTC	Symbol Technologies* (63)
OTC	Taco Charley (29)
OTC	Tandem Computers*** (18)
OTC	Tandon* (13)
OTC	Team* (96)
OTC	Texas Energies* (60)
OTC	Tomlinson Oil*** (47)
OTC	Triad Systems** (57)
OTC	Vector Graphic (6)

*1981 INC. 100 **1980-81 INC. 100 ***1979-80-81 INC. 100 †1980 INC. 100 ‡1979-80 INC. 100 OTC – over-the-counter AMEX – American Stock Exchange NYSE – New York Stock Exchange

100

Rank '82	'81	Company	Sales Growth '77-'81 Percent increase (comp. annual rate)	'81 Sales ('77 Sales) ($000)	'81 Net income ($000)	'77 Net income ($000)	'81 Net income as % of sales	No. of employees '81	'77	Acquisitions '77–'81	Date inc.	Business description
1	☐	**Apple Computer** (Cupertino, CA)	43,154% *356%*	$334,783 *$ 774*	$39,420	$ 42	11.8%	2,400	10	Yes	1977	Mfr. microcomputers
2	6	**Electro-Biology** (Fairfield, NJ)	11,184 *226*	13,315 *118*	1,107	(177)	8.3	163	10	No	1975	Mfr. medical equip.
3	☐	**Flare** (Midland, TX)	7,797 *198*	9,160 *116*	1,190	11	13.0	100	8	No	1975*	Seismic data services
4	18	**Bio-Medical Sciences** (New York, NY)	7,159 *192*	80,499[1] *1,109*	5,870[1]	(2,857)	7.3[1]	850	50	Yes	1967	Mfr. women's sportswear
5	☐	**Seisdata Services** (Houston, TX)	6,560 *186*	11,456[1] *172*	1,130[1]	13	9.9[1]	240	18	No	1977	Seismic data services
6	☐	**Vector Graphic** (Thousand Oaks, CA)	6,097 *181*	25,035 *404*	2,645	(38)	10.6	279	46	No	1976	Mfr. microcomputers
7	11	**Seal Fleet** (Galveston, TX)	4,286 *157*	12,287[1] *280*	2,289[1]	(127)	18.6[1]	277	4	No	1969	Offshore supply services
8	☐	**ASX Computer Systems** (Los Altos, CA)	4,219 *156*	13,000 *301*	1,491	28	11.5	98	17	No	1974	Software systems
9	☐	**Chemical Investors** (Indianapolis, IN)	4,183 *156*	38,080 *889*	(421)[2]	(308)	loss	370	22	Yes	1976	Mfr. chemicals, ind'l. tapes
10	20	**RSI** (Greenville, SC)	3,996 *153*	63,819 *1,558*	3,539	(162)	5.5	750	198	Yes	1972	Mfr. heat equip.; bottler
11	☐	**Bedford Computer** (Bedford, NH)	3,986 *153*	5,148 *126*	454	0	8.8	65	12	No	1977	Mfr. graphic composition systems
12	☐	**Micom Systems** (Chatsworth, CA)	3,962 *152*	32,818 *808*	3,948	4	12.0	503	20	Yes	1973*	Mfr. data commun. equip.
13	5	**Tandon** (Chatsworth, CA)	3,876 *151*	54,152 *1,362*	4,505	89	8.3	1,140	300	No	1976	Mfr. flexible disk drives
14	27	**Air Florida System** (Miami, FL)	3,793 *150*	304,160 *7,814*	(5,881)	(2,145)	loss	2,370	308	Yes	1955	Commercial airline
15	3	**Gulf Energy** (Salt Lake City, UT)	3,672 *148*	9,166 *243*	575	(106)	6.3	75	17	Yes	1968	Oil, gas & coal development
16	☐	**Sage Energy** (San Antonio, TX)	3,161 *139*	56,832 *1,743*	12,733	164	22.4	350	98	No	1977	Oil & gas explor., drilling
17	☐	**Lexidata** (Billerica, MA)	2,760 *131*	14,529 *508*	2,053	16	14.1	239	10	No	1974	Mfr. display processors
18	4	**Tandem Computers** (Cupertino, CA)	2,610 *128*	208,397 *7,691*	26,549	325	12.7	2,730	137	No	1974	Mfr. computers
19	64	**Inter-Tel** (Phoenix, AZ)	2,518 *126*	43,353 *1,656*	3,876	103	8.9	350	30	Yes	1969	Mfr. telephone systems
20	9	**NBI** (Boulder, CO)	2,432 *124*	57,628 *2,276*	7,158	(770)	12.4	1,079	82	No	1973	Mfr. word-processing systems
21	21	**Sterling Oil of Oklahoma** (Tulsa, OK)	2,379 *123*	18,001[1] *726*	143[1]	114	0.8[1]	270	20	Yes	1948	Oil & gas production; mfr. mobile quarters
22	24	**Sterling Pipe & Supply** (Oklahoma City, OK)	2,228 *120*	106,164 *4,561*	3,281	91	3.1	73	13	No	1976	Oil field equip. supplier
23	☐	**Nupec Resources** (Riverton, WY)	2,207 *119*	2,376 *103*	444	17	18.7	50	5	No	1976	Mineral explor. & devel.
24	☐	**Int'l Game Technology** (Reno, NV)	2,080 *116*	61,510 *2,821*	13,892	300	22.6	525	38	No	1952*	Mfr. coin-op. video games
25	42	**Chemold** (Binghamton, NY)	2,068 *116*	36,751 *1,695*	1,225	2,018	3.3	416	250	Yes	1949	Mfr. women's sportswear
26	12	**Nutri/System** (Huntingdon Valley, PA)	1,948 *113*	49,183 *2,402*	9,246	473	18.8	674	93	Yes	1976	Owner/franchisor weight-loss centers
27	8	**Network Systems** (Brooklyn Park, MN)	1,913 *112*	21,014 *1,044*	3,542	(1,751)	16.9	236	85	No	1974	Mfr. data commun. equip.
28	28	**Magnetic Head** (Glen Head, NY)	1,892 *111*	9,023 *453*	(318)	24	loss	140	27	Yes	1968	Mfr. precision parts & coatings
29	☐	**Taco Charley** (San Mateo, CA)	1,889 *111*	11,158 *561*	(1,017)	(171)	loss	652	65	No	1975	Mexican fast-food restaurants
30	☐	**HemoTec** (Englewood, CO)	1,800 *109*	1,938 *102*	304	(128)	15.7	35	7	No	1974	Mfr. surgical monitoring syst.

1–Estimate (12/31 closing, fig. unavailable at press time) 2–Nine-month fig. *Predecessor

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Rank '82	Rank '81	Company	Sales Growth '77-'81 Percent increase (comp. annual rate)	'81 Sales ('77 Sales) ($000)	'81 Net Income ($000)	'77 Net Income ($000)	'81 Net Income as % of sales	No. of employees '81	No. of employees '77	Acquisitions '77-'81	Date Inc.	Business description
31	94	**Flight Transportation** (Eden Prairie, MN)	1,706% *106%*	$24,844 *$1,376*	$2,291	$ (94)	9.2%	140	55	Yes	1968	Charter airline; aviation services
32	63	**M.D.C.** (Denver, CO)	1,590 *103*	60,923 *3,605*	5,187	297	8.5	153	25	No	1972	Residential construction, developer
33	☐	**Centuri** (Hialeah, FL)	1,581 *102*	61,460 *3,657*	7,519	(3,095)	12.2	250	15	No	1968*	Mfr. coin-op. video games
34	15	**Creative Foods** (Port Washington, NY)	1,576 *102*	18,489 *1,103*	123	(343)	0.7	103	21	No	1969	Burger King restaurants
35	☐	**Healthdyne** (Marietta, GA)	1,514 *100*	7,407 *459*	774	81	10.4	370	35	Yes	1970	Mfr. electronic medical equip.
36	☐	**Liz Claiborne** (New York, NY)	1,480 *99*	116,831 *7,396*	10,182	342	8.7	351	29	No	1976	Mfr. women's sportswear
37	☐	**Intertec Data Systems** (Columbia, SC)	1,464 *99*	17,156 *1,097*	3,731	18	21.7	165	14	No	1973	Mfr. microcomputers
38	108	**Heritage Communications** (Des Moines, IA)	1,440 *98*	77,157 *5,010*	3,812	(3,899)	4.9	1,897	135	Yes	1971	Operates cable TV systems; display commun.
39	☐	**Nuclear Support Services** (Woodbridge, VA)	1,433 *98*	16,957 *1,106*	680	85	4.0	400	100	No	1973	Nuclear utility services
40	☐	**Computer Associates Int'l** (Jericho, NY)	1,386 *96*	18,456 *1,242*	1,234	5	6.7	327	20	Yes	1974	Software systems
41	37	**Pacer Technology & Resources** (Campbell, CA)	1,353 *95*	5,275 *363*	(454)	2	loss	98	18	No	1976	Mfr. acrylics & ind'l adhesives
42	☐	**Computer Designed Systems** (Minneapolis, MN)	1,336 *95*	1,910 *133*	204	(12)	10.7	30	10	No	1977	Software & EDP services
43	38	**Dysan** (Santa Clara, CA)	1,278 *93*	104,202 *7,563*	5,158	1,068	5.0	2,300	346	Yes	1972	Mfr. magnetic memory media
44	☐	**Sea Galley Stores** (Mountlake Terrace, WA)	1,275 *93*	49,000 *3,564*	2,205	180	4.5	2,400	360	Yes	1968	Restaurants, food processing
45	☐	**Royalpar Industries** (West Hartford, CT)	1,193 *90*	12,634 *977*	70	(129)	0.6	252	40	No	1965	Technical personnel & services
46	54	**Shopsmith** (Vandalia, OH)	1,167 *89*	62,496 *4,931*	2,258	218	3.6	1,190	154	Yes	1972	Mfr. woodworking equip.
47	30	**Tomlinson Oil** (Wichita, KS)	1,151 *88*	132,796 *10,616*	(5,387)	245	loss	65	32	Yes	1957	Oil & gas explor., refining
48	13	**Printronix** (Irvine, CA)	1,120 *87*	52,428 *4,298*	4,639	270	8.8	880	115	No	1974	Mfr. computer line printers
49	117	**AM Cable TV Industries** (Coopersburg, PA)	1,081 *85*	14,640 *1,240*	1,299	12	8.9	457	44	Yes	1974	Constructs aerial networks
50	110	**Oxoco** (Houston, TX)	1,075 *85*	28,341 *2,413*	5,563	97	19.6	175	14	Yes	1972	Oil & gas explor.; mfr. compressors
51	☐	**Barton Valve** (Shawnee, OK)	1,035 *84*	22,584 *1,989*	4,377	31	19.4	232	29	Yes	1967	Mfr. valves & parts for petroleum ind.
52	☐	**Miller Tech. & Communications** (Phoenix, AZ)	990 *82*	5,626 *516*	677	20	12.0	120	30	No	1972	Tech. training; software; video products
53	177	**Pengo Industries** (Fort Worth, TX)	989 *82*	182,163 *16,727*	15,810	1,323	8.7	3,700	86	Yes	1977	Mfr. oilfield equip., chemicals; well services
54	76	**Swanton** (New York, NY)	984 *81*	14,504 *1,338*	1,790	(515)	12.3	50	10	No	1972	Financial services; coal operations
55	10	**Cado Systems** (Torrance, CA)	984 *81*	46,085 *4,252*	5,539	325	12.0	335	74	No	1973	Mfr. microcomputers
56	175	**Omnimedical** (Anaheim, CA)	983 *81*	37,651 *3,477*	1,667	(413)	4.4	555	128	Yes	1971	Medical diagnostic services
57	40	**Triad Systems** (Sunnyvale, CA)	978 *81*	78,391 *7,269*	8,863	781	11.0	1,092	135	No	1972	Mfr. turnkey microcomputer systems
58	☐	**Geophysical Systems** (Pasadena, CA)	977 *81*	35,895 *3,332*	4,320	151	12.0	850	50	No	1972	Mfr. seismic data systems & processing
59	90	**Andersen 2000** (Atlanta, GA)	972 *81*	9,776 *912*	960	18	9.8	30	14	No	1971	Mfr. pollution control equip.
60	44	**Texas Energies** (Amarillo, TX)	961 *80*	2,259 *213*	342	8	15.1	100	6	No	1966	Oil & gas explor.
61	34	**Amarco Resources** (Dallas, TX)	931 *79*	11,923 *1,157*	817	83	6.9	195	53	Yes	1972	Oil & gas well services
62	17	**Saxon Oil** (Dallas, TX)	922 *79*	81,467[1] *7,974*	1,176[1]	612	1.4[1]	134	20	No	1968	Oil & gas explor. and production
63	23	**Symbol Technologies** (Hauppauge, NY)	916 *79*	3,220 *317*	(340)	(283)	loss	70	7	No	1973	Mfr. laser scanners for bar coding
64	☐	**Majestic Electro Industries** (New York, NY)	899 *78*	30,204 *3,024*	484	167	1.6	42	110	Yes	1977	Mfr. lighting fixtures
65	74	**Health Extension Services** (Syosset, NY)	897 *78*	12,339 *1,238*	361	5	2.9	2,000	300	Yes	1975	Home health care services

1–Estimate (12/31 closing, fig. unavailable at press time) 2–Nine-month fig. *Predecessor

Rank '82	Rank '81	Company	Sales Growth '77-'81 Percent increase (comp. annual rate)	'81 Sales ('77 Sales) ($000)	'81 Net Income ($000)	'77 Net Income ($000)	'81 Net Income as % of sales	No. of employees '81	No. of employees '77	Acquisitions '77-'81	Date Inc.	Business description
66	☐	**Intergraph** (Huntsville, AL)	893% *78%*	$91,097 *$9,173*	$8,268	$ 441	9.1%	1,275	190	No	1969	Mfr. drafting systems
67	☐	**Jefferson-Williams Energy** (Dallas, TX)	878 *77*	8,281 *847*	388	(46)	4.7	71	7	No	1974	Oil & gas explor. and production
68	☐	**Machine Technology** (Whippany, NJ)	867 *76*	7,270 *754*	432	89	5.9	95	30	No	1971	Mfr. systems for semiconductor mfg.
69	48	**Nuclear Pharmacy** (Albuquerque, NM)	863 *76*	16,023 *1,663*	556	209	3.5	326	146	Yes	1974	Dispenser of radio-pharmaceuticals
70	56	**Petroleum Equipment Tools** (Houston, TX)	855 *76*	155,598 *16,296*	31,104	2,349	20.0	1,200	438	Yes	1967	Rents oil & gas drilling equip.
71	☐	**Blocker Energy** (Houston, TX)	842 *75*	136,040 *14,435*	4,346	778	3.2	1,350	207	No	1975*	Shallow-water drilling
72	☐	**Aracca Petroleum** (New York, NY)	838 *75*	1,520[1] *162*	203[1]	(80)	13.4[1]	15	3	No	1969	Oil & gas explor. and production
73	75	**Interface Mechanisms** (Lynnwood, WA)	837 *75*	15,636 *1,668*	1,679	238	10.7	240	44	No	1969	Mfr. bar code printers & readers
74	84	**Key Pharmaceuticals** (Miami, FL)	821 *74*	41,431 *4,500*	5,976	555	14.4	600	102	Yes	1947	Mfr. ethical drugs
75	35	**Reeves Communications** (New York, NY)	811 *74*	129,586 *14,221*	10,641	634	8.2	2,000	50	Yes	1969	Producer/distributor films & TV programs
76	85	**Seneca Oil** (Oklahoma City, OK)	811 *74*	11,651 *1,279*	1,412	279	12.1	134	10	No	1936	Oil & gas explor.; contract drilling
77	☐	**David Jamison Carlyle** (Los Angeles, CA)	807 *74*	30,132 *3,321*	1,032	10	3.4	80	2	Yes	1975	Computer & telecommunications equip. services
78	☐	**Immuno Nuclear** (Stillwater, MN)	798 *73*	3,214 *358*	679	(97)	21.1	59	17	No	1975	Mfr. diagnostic & clinical products
79	57	**Commodore** (Syracuse, IN)	793 *73*	199,302 *22,320*	4,802	3,186	2.4	2,200	494	Yes	1952	Mfr. mobile homes & recreational vehicles
80	7	**Cray Research** (Mendota Heights, MN)	792 *73*	101,642 *11,393*	18,170	2,027	17.9	1,079	199	No	1972	Mfr. large-scale computers
81	88	**Paradyne** (Largo, FL)	782 *72*	135,413 *15,358*	17,508	1,554	12.9	2,462	328	Yes	1969	Mfr. data communications systems
82	14	**Intelligent Systems** (Norcross, GA)	779 *72*	18,775 *2,135*	1,591	100	8.5	239	64	No	1973	Mfr. display terminals & desktop computers
83	65	**Quality Care** (Rockville Centre, NY)	777 *72*	67,575 *7,701*	(1,605)	201	loss	4,105	428	Yes	1969	Home health-care services
84	77	**Newport Pharmaceuticals Int'l.** (Newport Beach, CA)	774 *72*	10,762 *1,231*	1,359	(677)	12.6	135	39	Yes	1970	Mfr. antiviral drug compounds
85	☐	**Alaska Diversified Resources** (Anchorage, AL)	757 *71*	5,485 *640*	293	47	5.3	34	7	Yes	1960	Retail consumer electronics
86	☐	**S.A.L. Cable Communications** (Melville, NY)	745 *70*	18,376 *2,175*	754	23	4.1	70	15	No	1974	Supplier parts & materials for cable TV systems
87	66	**Minnetonka** (Chaska, MN)	739 *70*	96,664 *11,525*	1,225	1,243	1.3	592	208	Yes	1964	Mfr. personal care products
88	☐	**Kyle Technology** (Roseburg, OR)	736 *70*	4,633 *554*	762	42	16.4	87	20	No	1976*	Mfr. pacemaker terminals, connectors
89	97	**C3** (Reston, VA)	729 *70*	32,536 *3,927*	4,962	751	15.3	235	50	No	1968	Supplier customized mini-computer systems
90	60	**Hurco Manufacturing** (Indianapolis, IN)	712 *69*	44,213 *5,446*	2,142	545	4.8	433	111	No	1968	Mfr. machine tools
91	☐	**HBO & Co.** (Atlanta, GA)	698 *68*	29,088 *3,646*	3,015	412	10.4	253	46	Yes	1974	Hospital information services
92	☐	**EnerServ Products** (El Paso, TX)	697 *68*	71,285 *8,947*	8,236	137	11.6	500	8	No	1976*	Supplier casing/tubing for oil & gas wells
93	118	**CPT** (Eden Prairie, MN)	681 *67*	101,344 *12,982*	12,516	1,303	12.4	1,274	221	No	1971	Mfr. word-processing systems
94	☐	**Ferrofluidics** (Nashua, NH)	675 *67*	5,056 *652*	407	68	8.1	103	17	Yes	1968	Mfr. ferrofluidic seals & magnetic fluids
95	☐	**Compucorp** (Los Angeles, CA)	669 *67*	17,901 *2,329*	722	223	4.0	220	57	No	1968	Mfr. desktop computers
96	68	**Team** (Houston, TX)	666 *66*	38,959 *5,086*	3,312	378	8.5	750	400	Yes	1973	Oilfield & energy conservation services
97	104	**Microdyne** (Ocala, FL)	619 *64*	29,019 *4,037*	4,085	242	14.1	550	100	Yes	1967	Mfr. telecommun. systems
98	121	**Service Fracturing** (Pampa, TX)	617 *64*	16,884 *2,354*	2,708	192	16.0	160	30	Yes	1973	Oilfield services
99	107	**North American Watch** (New York, NY)	598 *63*	74,127 *10,618*	5,793	484	7.8	316	45	No	1961	Importer/distributor watches
100	95	**Matrix** (Northvale, NJ)	592 *62*	25,952 *3,750*	2,678	(334)	10.3	348	86	Yes	1956	Mfr. med. diagnostic syst. & graphic recorders

1-Estimate (12/31 closing, fig. unavailable at press time) 2-Nine-month fig. *Predecessor and managerial computer line, the Apple III, before manufacturing bugs had been ironed out. When it was discovered in the field that prospective customers were being sent scurrying, marketing timetables were thrown off, and Apple stock wilted to its low. But Markkula explains that it was simply a matter of bad judgment in thinking that dealers could act as a quality control mechanism. "We tried to use our dealers to insure that we had a good product," Markkula explains. "We assumed that if there was a problem, they would tell us about it, and we could correct it before it got to customers. But it didn't work that way. It took us a year to turn the negative impression around."

A central element in the Apple growing plan is designed around having the smallest number of employees producing the largest amount of goods, a condition Apple accomplishes largely through subcontracting. So far, growth in this area is on an upswing, too. In 1977, 10 employees averaged about $77,000 in sales each; in 1981, each of 2,400 employees averaged $139,500.

With figures like these, Apple obviously no longer is small potatoes (it expects to make the *Fortune 500* at the end of fiscal 1982). As the business gets bigger, Markkula notes, the problems become quite different. From the comfortable bedroom-and-garage of its infancy, Apple has grown into a corporate adult with all the attendant problems. The part that feels the loss of innocence first, he says, is management. Coordination has become much more complex; it's harder to keep team effort going. "Good management is difficult to find at *any* level," reflects Markkula, "whether it's at IBM, Apple, or XYZ Real Estate down on the corner."

Right now, Apple is feeling no growing pains, but Markkula views the future realistically: The spurt phase is winding down. Now Apple has to maintain a share of the market, and look to be first with another, perhaps not yet revealed, product. Each with nearly 25% of the total, Tandy Corp. and Apple are neck-and-neck in a personal-computer industry that is expected to tally over $2 billion in sales this year. By the end of 1985, experts foresee a $5-billion to $8-billion market worldwide. Apple is holding its own. Sales for the first quarter of fiscal 1982 (ending December 25, 1981) exceeded $100 million for the first time. In the spirit of the season, rejoicing management gave employees an extra week of paid vacation.

One problem Apple could conceivably face in the near future is pressure on prices. Already several personal computers are drastically lower priced than Apple's. Commodore Business Machines Inc. of Valley Forge, Pa., expects to introduce a budget machine that will be, at least in part, Apple-compatible. Osborne Computer of Haywood, Calif., has a low-priced portable unit. Franklin Computer of Pennsauken, N.J., has announced a machine that will accept Apple software and Apple peripherals. Undoubtedly there are others in the wings, each hoping to bite into Apple's share. Many won't be able to boast the capabilities, software, or distribution of the Apple line, but as the various entrants jockey for position, prices could tumble as they have in other sectors of consumer electronics.

Nonetheless, Markkula expects Apple to be able to keep pace with the market and perhaps gain a little within it. "We're not looking to triple our share," he admits. "That's not logical. The industry is too large and diversified." With the powerful Apple III now straightened out and undergoing test marketing, and an impressive list of peripherals and software to back it up, it's on to the next. That, reports have it, is code-named "Lisa," Apple's most-powerful-yet machine, designed for data- and word-processing functions and graphics editing. Beyond that, Markkula is mum. But he did not disagree when asked if networking—the interconnection of terminals, programs, and peripherals to optimize cost-effectiveness of equipment—might be the coming thing. And if Apple partakes proportionately in the predicted fivefold increase in personal computer sales, by 1985 it will be grossing over $1.5 billion.

Wall Street, however, remains unconvinced. As the spring of '82 approached, Apple stock was still dawdling at less than half its high of last year. Perhaps it simply had gotten swept along in the out-rushing tide that did in just about every stock remotely connected with technology. At least Markkula thinks so. "I'm surprised that there wasn't more selectiveness in what has happened to the market," he says. "Just because one company has problems doesn't mean that they can be applied to all the others. Each company is unique and different."

Everything about Apple, from its uncommon birth, to the superslick magazine it puts out for owners, to the name itself, has always been different. When you're born to grow, you'd better be.

WHERE THE FAST GROWTH IS...BY INDUSTRY

Here's a ranking of the 1982 INC. 100 companies by industry. While Apple Computer emerges as the overall front-runner, having multiplied its sales 432.5 times in the past five years, the 15 computer manufacturers among the INC. 100 are runners-up to a trio of women's sportswear producers. Other leading industries include fast food, energy, cable TV, and data communications.

Industries and companies are ranked by five-year sales multiples. As a group, for example, the three companies in the apparel industry have multiplied their sales 22.9 times since 1977, followed by those in the computer business at 19.4 and the food service field at 15.0. The miscellaneous category includes leaders in the manufacture of high-technology adhesives, machine tools, and video games.

Industry/INC. 100 company
(5-year sales multiple)

1. **Apparel** (22.9)
    - Bio-Medical Sciences (72.6)
    - Chemold (21.7)
    - Liz Claiborne (15.8)
2. **Computers & related products** (19.4)
    - Apple Computer (432.5)
    - Vector Graphic (62.0)
    - Bedford Computer (40.9)
    - Tandon (39.8)
    - Lexidata (28.6)
    - Tandem Computers (27.1)
    - Intertec Data Systems (15.6)
    - Dysan (13.8)
    - Printronix (12.2)
    - Cado Systems (10.8)
    - Triad Systems (10.8)
    - Intergraph (9.9)
    - Cray Research (8.9)
    - Intelligent Systems (8.8)
    - Compucorp (7.7)
3. **Food service & processing** (15.0)
    - Taco Charley (19.9)
    - Creative Foods (16.8)
    - Sea Galley Stores (13.7)
4. **Oil, gas & minerals** (13.4)
    - Gulf Energy (37.7)
    - Sage Energy (32.6)
    - Sterling Oil of Oklahoma (24.8)
    - Nupec Resources (23.1)
    - Tomlinson Oil (12.5)
    - Oxoco (11.7)
    - Texas Energies (10.6)
    - Saxon Oil (10.2)
    - Jefferson-Williams Energy (9.8)
    - Aracca Petroleum (9.4)
    - Seneca Oil (9.1)
5. **Cable TV systems & services** (13.1)
    - Heritage Communications (15.4)
    - AM Cable TV Industries (11.8)
    - S.A.L. Cable Communications (8.4)
6. **Data processing & software** (11.6)
    - Flare (79.0)
    - ASK Computer Systems (43.2)
    - Computer Associates Int'l (14.9)
    - Computer Designed Systems (14.4)
    - David Jamison Carlyle (9.1)
    - C3 (8.3)
7. **Data communications, scanners & word processing** (10.9)
    - Micom Systems (40.6)
    - Inter-Tel (26.2)
    - NBI (25.3)
    - Network Systems (20.1)
    - Symbol Technologies (10.2)
    - Interface Mechanisms (9.4)
    - Paradyne (8.8)
    - CPT (7.8)
    - Microdyne (7.2)
8. **Petroleum industry products & services** (10.6)
    - Seisdata Services (66.6)
    - Seal Fleet (43.9)
    - Sterling Pipe & Supply (23.3)
    - Barton Valve (11.4)
    - Pengo Industries (10.9)
    - Geophysical Systems (10.8)
    - Amarco Resources (10.3)
    - Petroleum Equipment Tools (9.5)
    - Blocker Energy (9.4)
    - EnerServ Products (8.0)
    - Team (7.7)
    - Service Fracturing (7.2)
9. **Medical/health products & services** (10.3)
    - Electro-Biology (112.8)
    - Nutri/System (20.5)
    - HemoTec (19.0)
    - Healthdyne (16.1)
    - Omnimedical (10.8)
    - Health Extension Services (10.0)
    - Nuclear Pharmacy (9.6)
    - Key Pharmaceuticals (9.2)
    - Immuno Nuclear (9.1)
    - Quality Care (8.8)
    - Newport Pharmaceuticals (8.7)
    - Kyle Technology (8.4)
    - HBO & Co. (8.0)
    - Matrix (6.9)
10. **Miscellaneous** (13.2)
    - Chemical Investors (42.8)
    - RSI (41.0)
    - Air Florida (38.9)
    - Int'l Game Technology (21.8)
    - Magnetic Head (19.9)
    - Flight Transportation (18.1)
    - M.D.C. (16.9)
    - Centuri (16.8)
    - Nuclear Support (15.3)
    - Pacer Technology & Resources (14.5)
    - Royalpar Industries (12.9)
    - Shopsmith (12.7)
    - Miller Tech. & Communications (10.9)
    - Swanton (10.8)
    - Andersen 2000 (10.7)
    - Majestic Electro Industries (10.0)
    - Machine Technology (9.6)
    - Reeves Communications (9.1)
    - Commodore (8.9)
    - Alaska Diversified Resources (8.6)
    - Minnetonka (8.4)
    - Hurco Manufacturing (8.1)
    - Ferrofluidics (7.8)
    - North American Watch (7.0)

100

WHERE'S THE CLASS OF '81?

Led by senior stalwarts Cray Research, Tandem Computers, and Tomlinson Oil, 50 of the 1981 INC. 100 companies graduated to the 1982 listing. Of those, 19 moved up in ranking and two retained their positions. The other 29 slipped in the rankings but remain members of an elite club where 1,000% sales growth in the past five years is more the rule than the exception.

What of the 50 companies that failed to qualify this year? Eight did not meet the basic criterion: sales of less than $25 million in the base year 1977. In this category are: Acton, DPF, Intermedics, Nike, Nucorp Energy, Petro-Lewis, Prime Computer, and Rolm—six of which have passed not only the $25-million mark but the $250-million milestone in the past five years.

Twenty-six other 1981 INC. 100 companies grew in the new base period but were off the 590%+ pace of this year's top 100. At least 21 of these clearly rank among the second 100 fastest-growing smaller companies in the United States; including 15 alumni who registered sales gains of more than 400% in the past five years. Pacesetters among the runners-up include Kinder-Care Learning Centers (+579%), CGA Computer Associates (+543%), and Floating Point Systems (+523%).

Twelve companies in last year's ranking closed fiscal 1981 with sales decreases, thus failing to qualify. Notable among those whose 1981 sales tumbled are Chuck Barris Productions, down 91%; Optel, down 48%; and Cobb Resources (last year's leader), off 44%.

The remaining four companies have created headlines representing good news and bad—mergers, litigation, and bankruptcy. Having relinquished their independence to merge with larger companies, DSI and Delhi International Oil no longer qualify for the INC. 100. DSI merged with Anacomp (an INC. 100 company in 1979–80), and Delhi has been absorbed by CSR Ltd., an Australian conglomerate.

Meanwhile, Data Access Systems is entangled in setbacks that include severe discrepancies in its 1977–81 financial statements, conviction of its former chief executive officer on fraud charges, and default on its loan agreements. At press time, the firm was scrambling to arrange new credit terms, scale back its staff, and forge a comeback.

Finally, the Class of '81 is not without a casualty. Barraged by creditor demands, Pittsburgh–based FSC Corp. (No. 32 last year) plunged into bankruptcy last August.

WHAT IT TAKES TO MAKE THE INC. 100

Companies are ranked according to their percentage increase in sales during the last five years (1977–81). To be included in the INC. 100, each company must meet these criteria:

1. The company is an independent, publicly held corporation in a manufacturing, mining, or service industry. Utilities, banks, insurance companies, and other financial institutions are excluded.
2. The company was publicly held as of December 31, 1981.
3. The company shows an operating/sales history of at least five years, with an increase in its fiscal 1981 closing figure. Firms showing growth in the 1977–81 base period but a sales decline in the last year are excluded.
4. The company's 1977 sales were at least $100,000 but less than $25 million.

Sales and income figures are gathered from 10-Ks, prospectuses, annual reports, and various data bases and directories. Additional information is collected from stock reports, trade magazines, and general business publications. By applying the four criteria above, as well as a five-year growth rate of at least 500 , INC. pared the number of companies that potentially qualified for listing from 11,000 to less than 200.

Telephone interviews were conducted with corporate executives to verify the figures, and an editorial team led by senior editor Bradford W. Ketchum, Jr., and assistant editor Carol Torres then selected the 1982 INC. 100.

THE INC. 100 PROFILE

No. of firms by industry	
Manufacturing	53
Services	36
Mining (including oil & gas)	11
Total sales ($ billion)	$5.0
Percent change (1977-81)	+1,247%
Percent change (1980–81)	+77%
Total net income ($ million)	$404.8
Percent change (1977–81)	+3,846%
Percent change (1980–81)	+107%
Mean sales in 1981 ($ million)	$28.7
Mean sales in 1977 ($ million)	$1.7
Comp. average annual sales growth (1977–81)	
Total	92%
Range	62%–356%
Mean	84.5%
Net income as % of sales	
Range	0.6%–22.6%
Mean	8.9%
No. acquiring other firms (1977–81)	45
No. incorporated since 1972	56
Total no. of employees	
1981	62,597
1977	8,853
Percent change (1977–81)	+607%

TOP 10 PERFORMERS: HOW PRODUCTIVE, HOW PROFITABLE?

1981 Productivity*
(Sales per employee)

Rank	Company (INC. 100 rank)	Sales per employee
1.	Sterling Pipe & Supply (22)	$1,454,301
2.	Majestic Electro Industries (64)	719,143
3.	David Jamison Carlyle (77)	376,650
4.	Liz Claiborne (36)	332,852
5.	Andersen 2000 (59)	325,867
6.	S.A.L. Cable Communications (86)	262,514
7.	Centuri (33)	245,840
8.	North American Watch (99)	234,579
9.	Flight Transportation (31)	177,457
10.	Minnetonka (87)	163,284

Excludes capital-intensive energy developers or companies whose primary business is leasing or real estate.

1981 Profitability
(Net income as % of sales)

Rank	Company (INC. 100 rank)	Net income % of sales
1.	Int'l Game Technology (24)	22.6
2.	Sage Energy (16)	22.4
3.	Intertec Data Systems (37)	21.7
4.	Immuno Nuclear (78)	21.1
5.	Petroleum Equipment Tools (70)	20.0
6.	Oxoco (50)	19.6
7.	Barton Valve (51)	19.4
8.	Nutri/System (26)	18.8
9.	Nupec Resources (23)	18.7
10.	Seal Fleet (7)	18.6

Investing in Growth Companies

THE INC. 100: WHAT GOES UP MUST COME DOWN

This year's INC. 100 average headed south along with the rest of the stock market indexes. But all things considered, it could have been worse.

By Wall Street standards, anyway, the Second Industrial Revolution that many have thought would be sparked by small-company, big-growth innovation has not yet taken hold. All the major averages declined significantly since last March, when INC. first pitted its annual compilation of the country's fastest-growing public companies against the Dow Jones Industrials, the Standard & Poor's 500, the American Exchange Index, and the NASDAQ Composite. At that time, the table showed that the INC. 100 average—a figure arrived at by calculating how $100 invested in each stock would have fared for 12 months—gained an enviable 76%. That was double its closest rival, the NASDAQ Composite, at 38%. The Amex Index was up 27%, the S&P 500 was up 22%, and the creaky old Dow a mere 19%.

This time around, the tables have turned. INC.'s new gathering of the fastest growers turned in the worst collective performance. But, taken in the context of a recessionary cycle, it wasn't *that* bad. Where last year's 100 list soared head and shoulders above the other four averages, this year it is simply bringing up the rear of a bedraggled lot. For that dubious distinction, it dropped below the Amex by a single percentage point, both indexes being sprinkled liberally with oil stocks, which fared particularly badly in the 12-month period. Even the conservative Dow and the S&P were well into double-digit declines. Perhaps the biggest surprise—if there are any surprises—comes in the breadth of the difference between NASDAQ and INC., since both are largely made up of the same breed of modestly capitalized, often high-tech smaller company. NASDAQ is the exchange of choice (or necessity) of no less than 90 of this year's INC. group. But after outstripping the NASDAQ index by double last year, INC. nearly doubled NASDAQ's loss this year. Again, the unusual preponderance on INC.'s list of energy-related issues—a group whose rapid revenue growth is destined to be slowed by recent oil oversupply—would help to explain INC.'s downside proclivity. Despite this reversal of fortunes, for both years taken together INC. is still ahead by a healthy 25%. This two-year return approximates that of a money fund, but it would be far more breathtaking for an investor.

RELATIVE MARKET PERFORMANCE OF THE INC. 100

	3/10/81	3/10/82	% Loss
INC.	100	73.36	27
Dow Jones Industrials	972.66	804.89	17
Standard & Poor's 500	130.46	109.41	16
American Exchange Index	336.94	249.19	26
NASDAQ Composite	199.03	170.42	14

In any event, for two apparent reasons, such comparisons are academic. One is that the 1982 INC. enumeration is different from last year's version. Forty-seven entries are on the list for the first time (no fewer than 26 of which went public during the 12 months). The other reason is that, factually speaking, the INC. 100 could not have been invested in last March, since no one could have known then which companies would be included.

Unlike some indexes, such as the DJI, which "weight" certain components more or less heavily than others, INC.'s is a true average of how each of its 100 stocks performed. Here's how it was arrived at: The mean bid (or, in the case of the 10 NYSE and Amex stocks, the close) was tabulated between the month's high and low for March 1981 and for March 1982 (at press time). INC. then "bought" the number of shares and fractional shares that it could have purchased with $100 for the March 1981 mean, and "cashed out" at the March 1982 mean. The result is shown in the right-hand column. The total was then added, and divided by 100 to get the average. Brokerage commissions were not considered, nor were cash dividends. Most of the INC. 100, because of their nature, are not cash payers. But 10 of them voted stock splits or stock dividends, down from 32 last year.

That the INC. 100 can gain 76% one year and lose 27% the next is not particularly puzzling. As myopic as the stock market may often seem, Wall Street looks well beyond expanding sales and fears the problems that a recession can bring to small businesses. Although a company may remain fiscally sound, chances are that it will be touched to some degree by the general dispirit and downturn of a troubled economy. The market simply doesn't like taking such chances, no matter how dynamically earnings may be growing.

It ought to be some encouragement, then, that 21 members of the class of '82 managed to show a stock-market profit. They are, for the most part, young companies with little experience so far in facing adversity. The list's largest gainer—Ferrofluidics Corp. of Nashua, N.H.—is just such a company. Only 13 years old and newly public, Ferrofluidics has experienced soft earnings periods. With many sophisticated technology products under development, the company says, this performance is in accordance with its business projections. The company has kept functioning well, has quietly managed to come up with financing when needed (see "R&D Partnerships Come of Age," INC., March) and seems quite untouched by the fiscal turmoil taking place outside its doors. If the Second Industrial Revolution is indeed just around the corner, it may well be that such fearless youths will lead it. In the meantime, for those whose portfolios are replete with last year's high-fliers, it's well to remember that what went down can also go up—and that the volatility of stocks like those represented on the INC. list can turn frowns into smiles in a matter of weeks.

Unlike some indexes, such as the DJI, INC.'s is a true average of how each of its 100 stocks has performed.

In the long run, fundamentals matter and, if the sales growth records turned in by these companies mean anything, the future should be brighter than the immediate past. —*R. Mamis*

INC. 100 MARKET PERFORMANCE

1982 Rank	Company (symbol)	Mean High/Low 3/81	Mean High/Low 3/82	$100 Worth
1	**Apple Computer** (AAPL)	$24.19	$16.79	$69.41
2	**Electro-Biology** (EBII)	24.00	20.13	84.88
3	**Flare** (FLAR)	3.25[a]	2.63	80.92
4	**Bio-Medical Sciences** (BMSC)	2.06	1.31	63.59
5	**Seisdata Services** (SDAT)	7.25[b]	5.25	72.41
6	**Vector Graphic** (VCTR)	14.38[b]	10.63	73.92
7	**Seal Fleet** (SEALA)	5.44	2.25	41.36
8	**ASK Computer Systems** (ASKI)	13.44[b]	12.38	92.11
9	**Chemical Investors** (CHML)	3.63	2.50	68.97
10	**RSI** (RSIC)	2.13	2.00	93.90
11	**Bedford Computer** (BEDF)	8.44[c]	8.63	102.25
12	**Micom Systems** (MICS)	34.50[d]	21.50	62.32
13	**Tandon** (TCOR)	20.13	25.13	124.84
14	**Air Florida System** (AIRL)	11.88	5.00	42.09
15	**Gulf Energy** (GFEC)	2.00	0.44	22.00
16	**Sage Energy** (SAG)[A]	24.56	10.31	41.98
17	**Lexidata** (LEXD)	14.13[e]	9.44	66.81
18	**Tandem Computers**[1] (TNDM)	23.63	23.38	98.94
19	**Inter-Tel** (INTL)	21.63	10.41	48.13
20	**NBI** (NBI)[N]	24.75	23.63	95.47
21	**Sterling Oil of Oklahoma** (SOOK)	1.75	0.75	42.86
22	**Sterling Pipe & Supply** (PIPE)	13.50[f]	4.13	30.59
23	**Nupec Resources** (NUPC)	0.58	0.30	51.72
24	**Int'l Game Technology** (IGAM)	12.31[b]	13.56	110.15
25	**Chemold** (–)	1.00[B]	1.50[B]	150.00
26	**Nutri/System** (NUTR)	22.50	19.38	86.13
27	**Network Systems** (NSCO)	18.06	16.31	90.31
28	**Magnetic Head** (MHED)	0.34	0.19	55.88
29	**Taco Charley** (TACC)	1.19[a]	0.81	68.07
30	**HemoTec** (HEMO)	9.38	6.25	66.63
31	**Flight Transportation**[2] (FTCC)	5.70	8.00	140.35
32	**M.D.C.** (MDCO)	3.88	3.94	101.55
33	**Centuri** (CENT)	6.44	6.50	100.93
34	**Creative Foods** (–)	1.25[B]	1.00[B]	80.00
35	**Healthdyne** (HDYN)	18.50[e]	19.50	105.41
36	**Liz Claiborne** (LIZC)	23.00[d]	25.75	111.96
37	**Intertec Data Systems** (IDC)[A]	23.56[f]	16.94	71.90
38	**Heritage Communications** (HCOM)	14.94	8.88	59.44
39	**Nuclear Support Services** (NSSI)	9.50[e]	7.75	81.58
40	**Computer Associates Int'l** (CASI)	13.50[e]	12.63	93.56
41	**Pacer Technology & Resources** (PTRI)	5.56	1.63	29.32
42	**Computer Designed Systems** (CDSI)	2.94[e]	2.50	85.03
43	**Dysan** (DYSN)	20.00	13.50	67.50
44	**Sea Galley Stores** (SEAG)	14.69	8.44	57.15
45	**Royalpar Industries** (–)	3.00[B]	4.00[B]	133.33
46	**Shopsmith** (SHOP)	10.38	7.13	68.69
47	**Tomlinson Oil** (TLOC)	9.81	2.56	26.10
48	**Printronix** (PTNX)	24.38	18.75	76.91
49	**AM Cable TV Industries** (AMTV)	23.50	4.56	19.40
50	**Oxoco** (OXCO)	15.06	6.94	46.08
51	**Barton Valve** (BART)	25.25[d]	17.38	68.83
52	**Miller Tech. & Communications** (MECC)	10.00	7.81	78.10
53	**Pengo Industries** (PGO)[N]	26.25	11.00	41.90
54	**Swanton**[3] (SWTN)	18.00	6.00	33.33
55	**Cado Systems**[4] (CADO)	21.42	9.88	46.13
56	**Omnimedical** (OMNI)	16.13	5.50	34.10
57	**Triad Systems** (TRSC)	29.25	17.00	58.12
58	**Geophysical Systems** (GSCO)	24.75[d]	10.25	41.41
59	**Andersen 2000** (ANDN)	13.25	8.13	61.35
60	**Texas Energies** (TXEN)	7.38	4.69	63.55
61	**Amarco Resources** (AMAR)	5.56	2.19	39.39
62	**Saxon Oil** (SAXO)	40.75	6.56	16.10
63	**Symbol Technologies** (SMBL)	9.69	5.25	54.18
64	**Majestic Electro Industries**[5] (MJEL)	1.60	0.81	50.63
65	**Health Extension Services** (HELP)	13.38	6.06	45.29
66	**Intergraph** (INGR)	29.38[f]	21.88	74.47
67	**Jefferson-Williams Energy** (JWEC)	8.38[h]	5.50	65.63
68	**Machine Technology** (MTEC)	4.00	3.13	78.25
69	**Nuclear Pharmacy** (NURX)	7.94	7.56	95.21
70	**Petroleum Equipment Tools**[6] (PTCO)	24.06	16.63	69.12
71	**Blocker Energy** (BLK)[A]	26.56	7.69	28.95
72	**Aracca Petroleum** (ARAC)	7.50	2.56	34.13
73	**Interface Mechanisms** (INTR)	17.13	6.25	36.49
74	**Key Pharmaceuticals**[7] (KPH)[A]	19.42	20.44	105.25
75	**Reeves Communications**[8] (RVCC)	24.50	30.25	123.47
76	**Seneca Oil** (SNCA)	18.44	5.00	27.11
77	**David Jamison Carlyle** (DJCC)	5.00	5.00	100.00
78	**Immuno Nuclear**[9] (INUCC)	7.88	11.88	150.76
79	**Commodore** (CCT)[A]	3.19	3.38	105.96
80	**Cray Research** (CYR)[N]	36.13	29.19	80.79
81	**Paradyne** (PDN)[N]	35.31	32.50	92.04
82	**Intelligent Systems** (INTS)	17.50	17.88	102.17
83	**Quality Care** (QUCAC)	4.31	3.19	73.96
84	**Newport Pharmaceuticals Int'l** (NWPH)	12.19	5.56	45.61
85	**Alaska Diversified Resources** (ADRI)	1.13[i]	1.44	127.43
86	**S.A.L. Cable Communications** (SALC)	15.06[d]	6.13	40.70
87	**Minnetonka**[10] (MINL)	5.16	3.38	65.50
88	**Kyle Technology** (KYLE)	6.88[d]	9.06	131.69
89	**C3** (CCCI)	31.50	13.00	41.27
90	**Hurco Manufacturing** (HURC)	20.38	12.38	60.75
91	**HBO & Co.** (HBOC)	25.75[d]	29.13	113.13
92	**EnerServ Products** (ESV)[A]	16.75[f]	8.88	53.01
93	**CPT**[11] (CPTC)	13.96	13.44	96.28
94	**Ferrofluidics** (FERO)	1.91[c]	3.25	170.16
95	**Compucorp** (CCUP)	7.94	8.50	107.05
96	**Team** (TEAM)	26.00	7.63	29.35
97	**Microdyne** (MCDY)	21.63	11.94	55.20
98	**Service Fracturing** (SERF)	23.00	12.25	53.26
99	**North American Watch** (–)	16.00[B]	26.00[B]	162.50
100	**Matrix** (MAX)[A]	34.00	17.94	52.76

All stocks traded over-the-counter except as noted. (N) New York Stock Exchange (A) American Stock Exchange (a) First public Nov. 1981 (b) First public Oct. 1981 (c) First public July 1981 (d) First public June 1981 (e) First public Dec. 1981 (f) First public April 1981 (g) First public May 1981 (h) First public Sept. 1981 (i) First public Aug. 1981 (B) Best available quote.
(1) 3:1 split, 7/81 (2) 5% div., 2/82 (3) 25% div., 7/81 (4) 50% div., 6/81 (5) 25% div., 8/81 (6) 100% div., 6/81 (7) 3:2 split, 6/81 (8) 50% div., 7/81 (9) 100% div., 1/82 (10) 3:1 split, 2/81 (11) 3:1 split, 7/81

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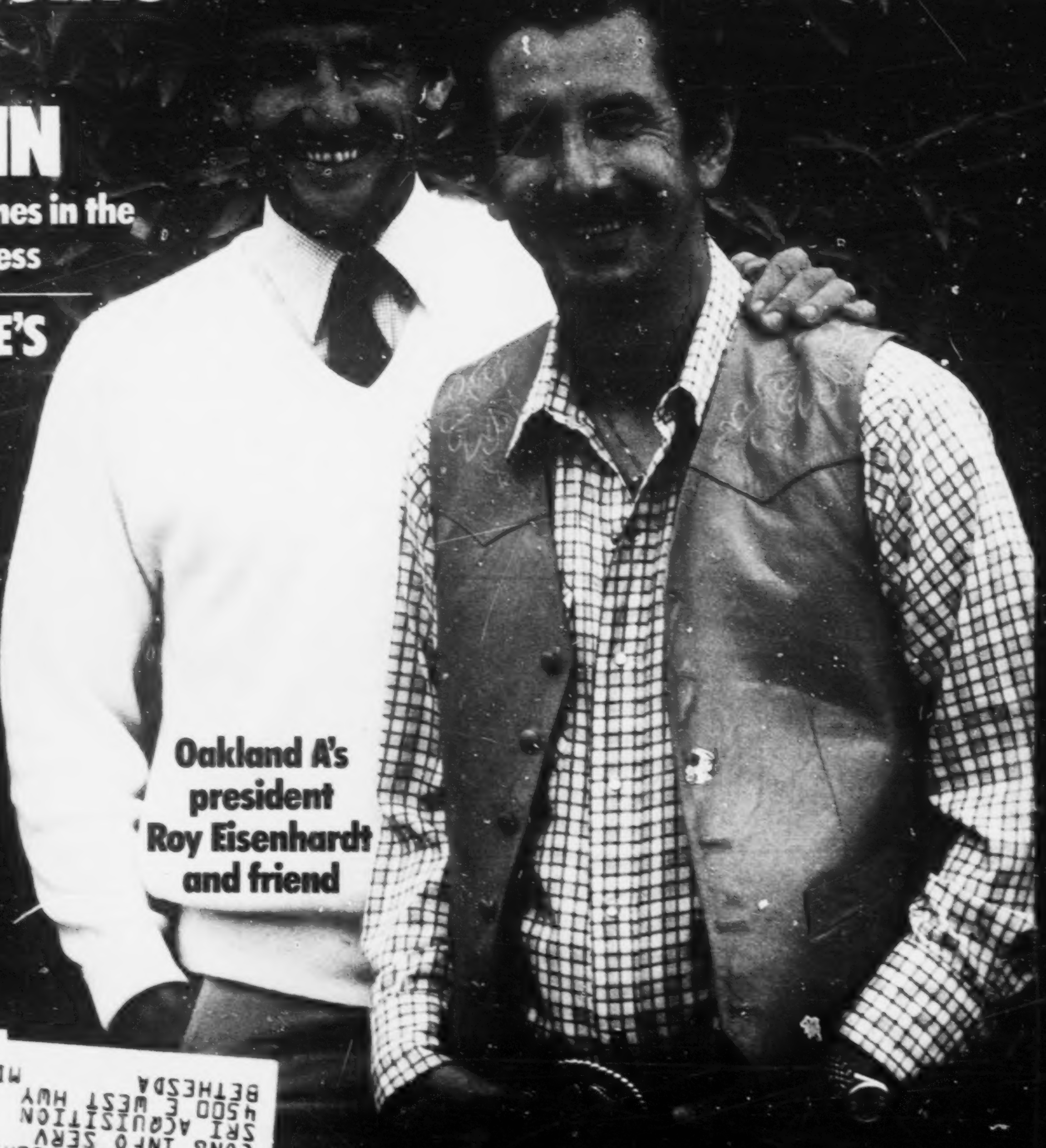

Oakland A's president Roy Eisenhardt and friend

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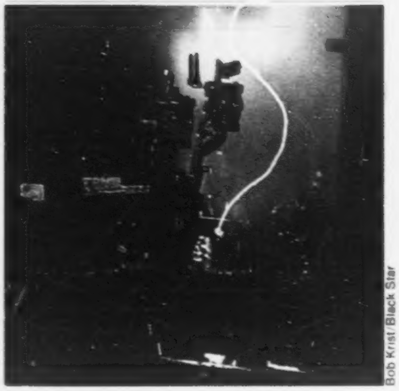

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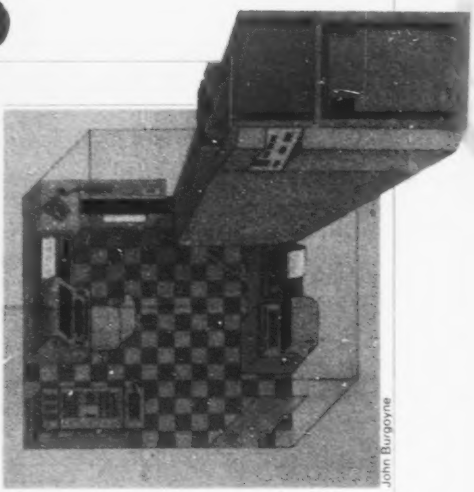

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INC. Special Report

YOU AND YOUR ATTORNEY

The relationship can be brief and hostile, or long and harmonious. Here's how to make it the latter.

By Bradford W. Ketchum, Jr.

Many small businesses consider the use of professional advisers a sign of extravagance. The truth is, it all depends on need. And the need for competent advice is rarely clearer than in matters involving law. Good legal services can be used to great advantage. Or they can be wasted. The difference is up to the client.

You have the right to remain silent, as they say, but that's a good way to insure a relationship with your lawyer that is more prodigal than productive. If your company is not getting its money's worth from its attorney, if you feel that you're being overcharged or underrepresented, it's up to you to present the evidence. If you don't question your attorney's advice or fees, he or she has the right to assume that you understand and accept both.

Although the small business executive and the typical lawyer consider themselves in different professional leagues, the two have much in common. Both operate in an independent sector of the economy, and neither has a sheltered market. Both place great importance on the freedom to pursue their own objectives and to choose their own customers and clients. And both face the usual problems of running a business—reducing paperwork, billing delinquent accounts, resolving personnel problems, maintaining facilities, and deciding whether to grow or to remain relatively small. Yet the relationship between small businesspeople and attorneys is often antagonistic. Lofty professional and lowly client often are paired, one to grapple with the problem while the other grumbles about the fee.

But small businesses and law businesses are vital to each other. A recent INC. study shows, for example, that more than 9 out of 10 (94%) small companies regularly rely on outside legal counsel, while close to 9 out of 10 (88%) attorneys consider small business clients important to their practices.

To help small companies improve their rapport with the legal profession, INC. surveyed some 5,000 small business executives and over 5,000 practicing attorneys (see "How We Reached Our Verdict," page 56). The results of the study provide five guidelines on how to be a better client and how to make your attorney a better adviser.

1. Treat your attorney as an insider. If your company is like most small businesses, its two most important outside advisers are its accountant (INC., March, page 81) and its attorney. Depending on company size and business circumstances, one of them probably holds the edge as your *chief* outside adviser. To build good working relationships, however, you should treat them equally—as insiders.

Since the need for legal advice is not as predictable or as regular as the need for accounting services, keeping your attorney on the inside track takes greater effort. It requires frequent and candid communication with your legal counsel. Too often, small companies call their lawyers only when it's time to draw up a contract or when litigation is imminent. Yet providing your lawyer with timely and cumulative information should be the rule. For example, copies of management memos regarding the current concerns or status of your business should be sent to your attorney as background for his files. If you hold a special planning meeting to discuss goals or future directions, invite your attorney to attend. As a confidant and participant, your attorney will be in a better position to provide advice and to respond readily

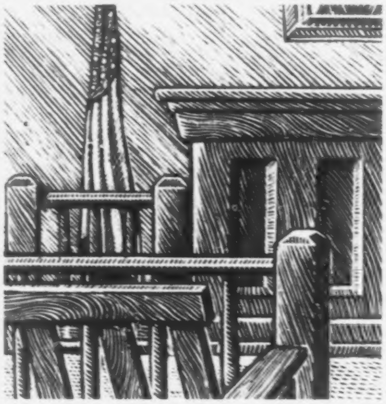
Illustrations by Doug Smith

to your company's legal needs.

Very few small companies—only 2%—employ their own full-time, in-house attorneys. In these cases, the legal adviser is literally an insider, generally functioning as president, vice-president/general counsel, or secretary/treasurer. Since a house counsel is impractical for most small businesses, many have discovered the next best step—tapping their attorneys to serve on their boards of directors. Directorship formalizes the attorney's status as an insider.

INC.'s study shows that the use of lawyers as directors is related to company size. About 10% of the companies with sales of less than $1 million enlist their attorneys for board duty. The figure rises to 20% among companies in the $3-million-to-$5-million category and to 30% in companies with sales of $5 million to $25 million. Judging from the responses from attorneys surveyed, the legal profession is not averse to director service—61% of them indicated that they currently serve on the boards of smaller clients.

2. Find out how you rate as a client. Small businesses are loyal, if not lucrative, accounts for most law firms. What they may lack in billing size they make up for in their preference for single long-term relationships. Some 68% of the respondents to the INC. survey rely on only one law firm, while 22% employ only two. The use of more than one attorney generally reflects the need for legal specialists rather than divided loyalty or competition. Most of those who employ



more than one legal adviser are larger firms whose sales are more than $5 million and whose needs exceed the capabilities of a single general practitioner.

Not only do small companies generally rely on a single source for legal services, they also tend to stick with that source. The majority of the INC. respondents represent older companies founded before 1970. Yet 44% of them report that their present law firm is the *only* one they have ever had. Among those who have switched law firms, three out of four have changed attorneys only once or twice. On average, the survey participants have retained their current legal counsel for more than nine years.

The limited turnover is testimony to the value of retaining competent advisers who know your business. But the loyalty it represents also helps explain why most law firms value small businesses as clients. Small companies account for the majority of the clientele in almost half (48%) of the law firms responding to INC.'s study. Only 1% of the attorneys reported they don't have smaller businesses as clients, and only 11% rate small companies as less important than larger clients.

Most attorneys agree that small companies not only represent a solid customer base but also offer broader potential than many larger clients. For this reason, three out of five law firms now employ full-time small business specialists; on average, the small business legal staff consists of three professionals.

How does your law firm rate small business in general and your business in particular? Is there a sense of loyalty between your company and its legal counsel? Is your attorney responsive to your needs as a small company? Does your law firm intend to expand its small business practice in 1982? Positive answers to such questions indicate your standing as a client and provide the foundation for making a good relationship even better.

3. When you call, make it count. If your company is like most small businesses, you rely on your law firm primarily to draw up contracts and agreements, wrestle with the personal needs of top management, and represent you in litigation. Other common needs for legal counsel involve real estate and insurance problems, estate planning, and matters as mundane as dunning delinquent accounts. Beyond these typical require-

HOW ATTORNEYS ARE USED

Legal service used (ranked by total mentions)	Under $1 mil.	$1 mil.- 2.9 mil.	$3 mil.- 4.9 mil.	$5 mil.- 24.9 mil.	$25 mil. or more
	Annual company sales				
	Percent of respondents				
Contracts & agreements	70%	74%	69%	84%	85%
Personal needs of top management	46	58	56	53	38
Formal litigation	34	50	63	61	91
Real estate & insurance matters	32	35	50	51	56
Incorporation	45	34	39	33	24
Estate planning	23	42	48	44	27
Delinquent accounts	20	33	39	34	21
Liability protection	20	17	22	33	41
Copyrights, trademarks, patents	21	19	24	28	38
Mergers & acquisitions	12	14	29	32	47
Employee benefits plans	10	26	19	27	27
Tax planning & review	13	17	22	17	12
Employee stock ownership plan	9	15	10	18	21
Franchising & licensing	13	11	14	14	12
Government-required reports	8	6	6	10	12
Prospectus for public offering	2	1	5	2	18
Labor relations	1	2	2	3	3

The need for legal counsel is obvious when it comes to contracts and lawsuits. But the INC. survey shows that small business managers also rely on company attorneys for personal problems ranging from tax matters to divorce and estate probate. As company size increases so does the need for advice in such areas as liability, mergers, and benefit plans.

PICKING AN ATTORNEY

How small business selects a law firm

Top 10 factors	Percent of respondents
1 Personal contact with members of firm	54%
2 Reputation	40
3 Prior relationship with firm	26
4 Recommended by other clients	15
5 Recommended by banker or accountant	14
6 Location	13
7 Range of services	13
8 Industry expertise	12
9 Fee	3
10 Small business's parent company	2

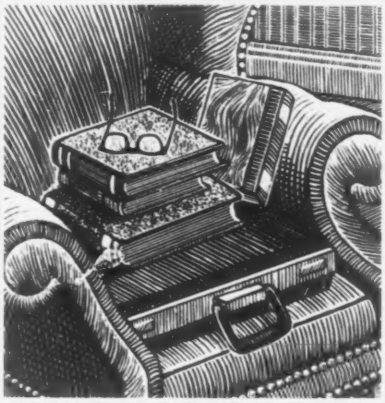
Personal relationships, reputation and references head the list of influences on small businesses' choice of attorneys.

ments, small business's demands for legal advice range from matters involving taxes and patents to labor relations and public offerings.

Maintaining regular communication with your lawyer is important. But how often should you be in touch and how do you make every call count?

The majority (58%) of the companies responding to INC.'s survey talk with their attorneys at least once every 30 days, although the frequency of communication varies widely, depending on company size and circumstances. Among the smallest firms, contact with legal counsel ranges from once a week (10% of respondents) to once every six or seven months (36%). Among larger companies, with sales of $5 million to $25 million, the percentages are almost reversed—33% are in touch with their attorneys at least once a week, while only 11% go beyond the six-month mark without communication.

Good communication with your legal adviser helps create the kind of rapport that prompts him to call *you*, for example, when he spots a change in legislation that might affect your business. Assuming that you don't have immediate need for counsel, contact once a month should suffice. A personal visit is preferable, but a phone call will do. Plan to cover at least three or four items or questions that you have jotted down and accumulated during the month. The continuity of relationship will be valuable in resolving routine matters but will count most when your need for legal advice is immediate and unexpected.



4. Forget the dollars, worry about the sense. Regardless of how smooth the relationship may be, legal fees are a perpetual burr for most small businesses. The problem is a practical one, with two sides and a single solution.

Clients often don't understand exactly what services their attorneys are performing and why they cost so much. They are mindful, however, that the meter is always running. In turn, attorneys are deficient in making clear to their clients just when they'll be billed, what the charges will be, and why. As a result, their bills always seem too late, too large, and too vague in terms of time spent and work done.

The solution is to establish a clear understanding about cost and then put it in writing. The written agreement should specify what services will be performed, what the fees and reimbursable expenses will be, and how you will be billed, including frequency, itemization, and—if applicable—progress summaries. As a matter of practice, several dos and don'ts apply. Don't ever hesitate to call your attorney. But when you ask him to do something—whether it's a request to attend a management meeting or send a dunning letter to a customer—don't expect him to do it for nothing. Do ask for an estimate on specific jobs, but don't continually try to negotiate fees.

How do most small businesses pay their attorneys, and what's the typical tab? Almost 7 out of 10 respondents to the INC. survey compensate their lawyers on an hourly basis; the rest rely on negotiated fees, flat rates, and retainers. Not surprisingly, the use of nonhourly payment methods directly relates to company size. Flat fees, for example, are generally found among the smallest companies, while retainer agreements are more common among the largest firms.

While annual legal costs among the survey respondents range from $150 to $75,000, the majority (63%) of companies manage to keep their legal fees under $5,000. Depending on company size, average annual legal expenses range from about $4,300 to nearly $43,000. Figures from the attorneys surveyed corroborate the data. Some 93% of the lawyers reported that small companies pay for their services on an hourly basis. While the average annual legal fee paid by their small business clients is $6,948, 55% of these clients pay less than $5,000.

Do small businesses enjoy any special break in rates? Not among most law firms. However, 17% of the attorneys surveyed offer what amounts to special concessions for small companies. Such breaks take the form of lower hourly rates, running as much as 30% less than larger clients pay, discounts of up to 25% for start-ups or repeat business, and deferred payment terms.

(continued on page 56)

HOW LAWYERS WOULD CHOOSE A LAW FIRM

	Criteria ranked most important (What a small company should look for)	Percent of attorneys*
1	**Specific expertise** (Experience in your area of need)	41%
2	**Overall competence** (Quality of advice, problem-solving ideas, negotiating skills, etc.)	39
3	**Fee** (Reasonable & affordable charges)	32
4	**Small business knowledge** (Experience with similar companies)	29
5	**Timely service** (Responsiveness, prompt turnaround)	28
6	**Personal attention** (Compatibility & willingness to become involved in your business)	25
7	**Reputation** (Recommendations of other clients)	22
8	**Availability** (Accessibility of top partner/attorney)	21
9	**Range of services** (Diversity & depth of staff)	17
10	**Importance of client to firm** (Client list & interest in small companies)	6

*Total exceeds 100% due to multiple responses

Advice from the advisers: Look for competence, reasonable fees, and small business savvy in selecting a law firm. Other factors that should be considered are the firm's ethical standards, track record, and partner credentials.

HOW ATTORNEYS SIZE UP SMALL BUSINESS

Typical client (annual sales $)	Percent of respondents
Under 500,000	17%
500,000-999,999	26
1 mil.-1.9 mil.	26
2 mil.-2.9 mil.	13
3 mil.-4.9 mil.	4
5 mil.-9.9 mil.	8
10 mil. or more	6

To most attorneys, small businesses are companies whose sales are less than $3 million. The typical small business client also has fewer than 50 employees.

5. To find a lawyer, look beyond the local bar. Knowing how to select a lawyer—whether to replace or to reinforce your existing counsel—is part of being a better client. There are various reasons, negative and positive, for switching attorneys. The negative ones range from consistent disagreement and general neglect, to incompetence and exorbitant fees. On the positive side, a change may be in order because your business simply has outgrown your legal counsel's capabilities or your needs have become more complex and require an experienced specialist. In the latter case, your present attorney may even instigate the change for you.

Regardless of the motive, how should the search for another law firm be launched and what criteria should you use for selection? Most larger libraries have a copy of the *Martindale-Hubbell Law Directory*—a national listing of the legal profession. Your local and state bar associations may be a better place to start. And your best source will be the references and recommendations provided by your business peers, accountant, banker, broker, and other advisers.

Based on the responses from small business executives and attorneys who participated in the INC. survey, the chief criteria for choosing a law firm include personal chemistry and accessibility, reputation, expertise in your specific area of need, overall competence, and fees commensurate with services performed. ☐

Bradford W. Ketchum, Jr., is a senior editor at INC.

HOW—AND HOW MUCH—ATTORNEYS ARE PAID

	Annual company sales					
	Under $1 mil.	$1 mil.-2.9 mil.	$3 mil.-4.9 mil.	$5 mil.-24.9 mil.	$25 mil. or more	All respondents
Method	Percent of respondents					
Hourly rate	67%	67%	72%	73%	63%	69%
Negotiated fee	16	17	15	7	6	14
Retainer	7	12	12	21	28	13
Flat fee	12	9	5	7	3	9
Annual legal fee						
Under $1,000	39	15	5	3	–	20
$1,000-$4,999	46	54	44	29	7	43
$5,000-$9,999	6	17	31	18	4	14
$10,000-$19,999	4	8	13	21	19	11
$20,000 or more	5	6	7	29	70	12
Average annual fee	$4,280	$5,370	$7,270	$15,050	$42,590	$8,400

Regardless of company size, most businesses compensate their attorneys by the hour. However, a few smaller companies pay negotiated or flat fees, while some larger firms rely on retainers. Among the smallest companies, annual legal expenses are generally less than $5,000.

THE 10 BIGGEST GRIPES ABOUT ATTORNEYS

Source of dissatisfaction	Percent of respondents
1. Timely service	33%
2. Reasonable & clear fee structure	24
3. Accessibility	23
4. Knowledge of client's business/industry	15
5. Communication & rapport	12
6. Limited staff	12
7. Technical knowledge	10
8. Interest in small business	8
9. Ability to cut red tape & paperwork	8
10. Turnover of professional staff	4

Small businesses' chief complaints about attorneys center on slow response, hefty fees, and inaccessibility of top staff members.

HOW WE REACHED OUR VERDICT

This article is the second in a series of special reports on small business and the professions. It summarizes a national study of smaller companies and their attorneys. The primary research for the report, conducted in December 1981 and January 1982, included two mail surveys supplemented by telephone interviews with a cross section of small business executives and practicing attorneys.

A four-page questionnaire was mailed to a random sampling of 4,995 INC. subscribers, followed by a two-page questionnaire sent to a random sampling of 5,008 attorneys. The latter group included more than 4,800 members of the American Bar Association's corporate law section and small business committee.

Excluding undeliverable, incomplete, and late returns, the net subscriber response rate was 22.1%. Some 993 subscriber returns were tabulated by computer to generate 46 cross-reference summaries. The net response from attorneys was 5.4%, providing 270 valid returns for statistical summaries.

The subscriber respondents represent all 50 states and the District of Columbia, 24% of them with headquarters in the Northeast, 13% in the Southeast, 40% in the Central region, and 23% in the Mountain/Pacific states. Separated into seven industry categories, the majority of respondents are in manufacturing (32%) or wholesale/retail businesses (25%). Other major groups include business services (17%), professional services (13%), and construction/real estate (7%).

The attorney respondents represent 42 states and the District of Columbia; 22% of them are based in the Northeast, 19% in the Southeast, 36% in the Central region, and 23% in the Mountain/Pacific states. While the respondents ranged from sole practitioners to law firms with as many as eight offices and 140 partners, about two out of three represent small law firms with one office and no more than 5 partners.

Other vital statistics of the two respondent groups include the following:

Subscribers (993)	
Avg. annual sales ($ mil.)	$5.1
Avg. number of employees	62
Privately held corporation	84%
Publicly held corporation	6%
Proprietorship	7%
Partnership	3%
Use outside attorney	94%
Attorneys (270)	
Avg. number of partners	10
Avg. number of employees	54
Median number of clients	250
Gen. practice: business law	72%
Gen. practice: litigation	6%
Business and litigation	11%
Specialist	11%

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THE UN-MANAGER

Without ranks and titles, Bill Gore's company has grown to $125 million

HOW TO BARTER FOR VIRTUALLY ANYTHING

WHY QUALITY CIRCLES ARE FLOUNDERING

CONTROLLING EMPLOYEE HEALTH-PLAN COSTS

Gore-Tex
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Bill Gore

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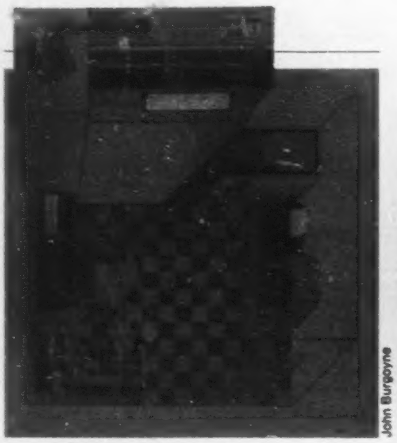

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Rx FOR TRIMMING HEALTH-CARE COSTS

Five ways to counter the spiraling cost of employee coverage.

By Annette Kornblum

If health insurance is costing your company from $1,200 to $1,500 per employee annually, you're not alone. Such a tab is typical—and it is bound to grow. But you needn't simply grin and bear the surge in insurance premiums. There are ways to shrink the size of your health insurance bill without compromising the well-being of your employees.

Here are five prescriptions to save you money on health-care costs.

1. Decide whether to provide health coverage and, if so, what type. Should you rely on traditional health insurance through a commercial carrier or offer alternative care through a community health plan? Should you go the "Cadillac" or "Pinto" route? Regardless of what you decide, there will be tradeoffs. If you decide that it's unnecessary to provide any health coverage, you won't be alone. In a 1981 survey of INC. subscribers, 21% of the respondents reported that their companies do not carry group insurance. If you provide benefits but opt for alternative health care, such as that offered by the growing number of one-stop health maintenance organizations (HMOs), you may get objections from employees who prefer to see their own doctors.

A "Cadillac" comprehensive plan will cover a substantial share of all hospital expenses, all physician fees, laboratory tests, X rays, and out-of-pocket expenses for prescription drugs, dental treatment, and even psychiatric care. But its cost may be four or five times the cost of a "Pinto" catastrophe-only plan, which is hospital and/or major medical. A company with a low-risk environment and young, healthy workers (i.e., average age under 40) could get by on a less-expensive, higher-deductible plan, while a high-risk company comprised of primarily older workers or those who have a history of illnesses and disability would be better off with a costlier, comprehensive policy.

Annette Kornblum is a freelance writer based in Washington, D.C.

Another key consideration is the maximum "out-of-pocket" expense an employee or family can afford. Under a plan with a $100 deductible plus $400 in co-insurance, or shared cost, the single employee would pay no more than $500 while a family of five could be liable for $2,200 a year because each individual is subject to the full co-insurance amount. If your company's employees are mostly married with families, a dollar limit on family out-of-pocket costs would restrict the liability and ultimately lower the employee's cost dramatically. On the other hand, with the exception of first-dollar (no-deductible) accident expense benefits, adding first-dollar hospital, surgical, and X-ray benefits may end up costing more in premiums than the actual level of benefits.

If your company provides health benefits, is required to pay the minimum wage, and has more than 25 employees living in the service area of a federally qualified HMO, you may be required by law to give employees the option of joining an HMO. HMOs are groups of local health-care providers, including hospitals, that operate on a prepaid principle with few or no deductibles. There are about 250 such organizations in the United States offering comprehensive medical services, generally under one roof. Some employees may prefer one-stop treatment, where they are guaranteed access as well as automatic coverage without having to submit claim forms. In some parts of the country, HMO premiums may be cheaper and even offer more benefits than conventional coverage.

HOW MANY COMPANIES HAVE GROUP INSURANCE?

A recent survey of INC. subscribers shows that 713, or 73%, of the companies that responded carry some form of group insurance, 21% indicated no coverage, and 6% did not specify. Not surprisingly, group health and major medical coverage come out on top.

Type of insurance	Percent of respondents who carry
Health	94
Major medical	80
Life (term)	72
Surgical	67
Accidental death & dismemberment	46
Long-term disability	35
Temporary disability	34
Dental	22
Health maintenance	12
Life (whole)	10

Source: 1981 INC. Financial Survey

2. Shop for a cost-conscious carrier. The discrepancy in price between essentially identical plans can be as much as 20% to 30%. For example, a mail-order company in Washington, D.C., with 14 employees, paid $1,580 in monthly premiums for a group life, health, and major medical plan before switching to another carrier that offered similar benefits—for $4,200 less a year. Because it required less paperwork, the company saved additional money and applied the windfall toward a dental plan and a money market fund, with $800 to spare.

How do you determine who offers the best deal? Comparison shop the way you would on any other business expenditure. Ask other employers in your area and industry who provides their coverage, what kind of services they are getting for the money, and whether they are satisfied. Contact Blue Cross and Blue Shield and commercial health-insurance companies. Ask prospective carriers for a list of references and find out which carriers are most receptive to designing a plan tailored to your company's needs.

Alternatively, check with brokers, agents, and insurance consultants who are familiar with the marketplace. The advantage of having them do the shopping is that they know offerings, know how to read the fine print in policies, and can help you design a benefit package reflecting your needs, within your budget. The trade-off is that you'll have to pay a percentage or fixed fee.

(continued on page 108)

FINANCIAL TACTICS _(from page 106)_

But if your bill is trimmed sufficiently—say 10%, from $60,000 a year to $54,000—a $2,500 fee will still put you ahead.

Before retaining a broker, make sure the firm specializes in employee benefits. Get a listing of its clients to contact and samples of work done for other small businesses to appraise its track record. Find out whether the broker will act as an intermediary between your company and the insurance company once the plan is purchased. Check the broker's capabilities in handling claims and administrative procedures that can save you time and money.

Don't hesitate to change carriers to get a competitive rate, assuming the benefits are comparable. And keep tabs on the company's own financial health. If a carrier lost $100 million on its health insurance operation in the past year, for example, current policyholders such as you are going to absorb part of the loss through future premium increases.

3. Consider increasing deductibles. On many standard major medical plans, increasing an individual's deductible from $100 to $200 can save from 10% to 20% on premiums, while a $500 deductible can save 30% or more. The trade-off is whether your employees can afford or will accept the idea of absorbing more of the cost of their health benefits. That is a critical question but also a prime cost factor. It can be argued that if employees are responsible for more of the cost, they won't be frivolous about using the health-care system unnecessarily.

Although it may discriminate against unhealthy workers, one option is to offer rebates to employees who use little health insurance. Increase the deductible, setting aside the difference in a reserve fund. Any employee who spends less than the deductible amount within a given year or years gets the difference when he or she resigns or retires. Alternatively, the savings could be passed along through a direct cash payment or as a fringe benefit.

Another approach is to raise the shared portion for employees from a standard 20% of the first $2,000 of expenses to 20% of the first $5,000. That can save from 5% to 10% on premium costs. Since few employees spend $5,000 on medical bills in any given year, the added risk is negligible.

4. Make a pact with a preferred provider. A new entry among alternative health-care plans, preferred provider organizations (PPOs) exist in 12 major cities from Minneapolis to Los Angeles. Dealing with a preferred provider simply means that you get a preferred rate, in exchange for agreeing to direct your employees to particular physicians and hospitals. Co-payments and deductibles are generally waived if employees stick to the health-care providers participating in the plan. If they select other doctors or hospitals, care is covered but there are co-payments and an annual deductible.

5. Link up with other employers. If you employ fewer than 50 people, consider forming or joining a small-employer pool for purchasing health-care coverage. It may help you get a good package at a competitive rate. The larger your group, the better your bargaining power. You can form a pool on either an industry or a geographic basis. Conventional carriers can also help you find other groups to join. But remember that a group's experience—good and bad—will affect your costs, especially on an experience-rated premium based on the group's previous claims. ☐

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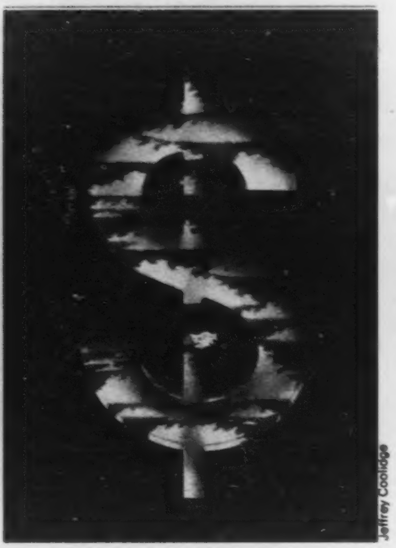
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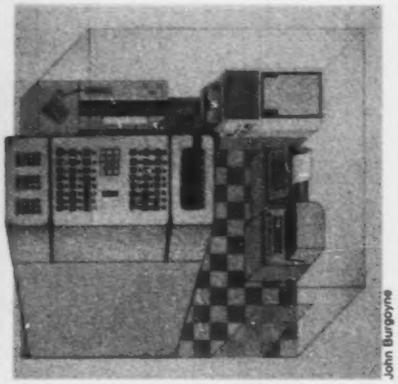
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Sculpture by Nicholas Fasciano; Painting by Bruce Sanders. Photo by Jeffrey Coolidge

How to balance the books.

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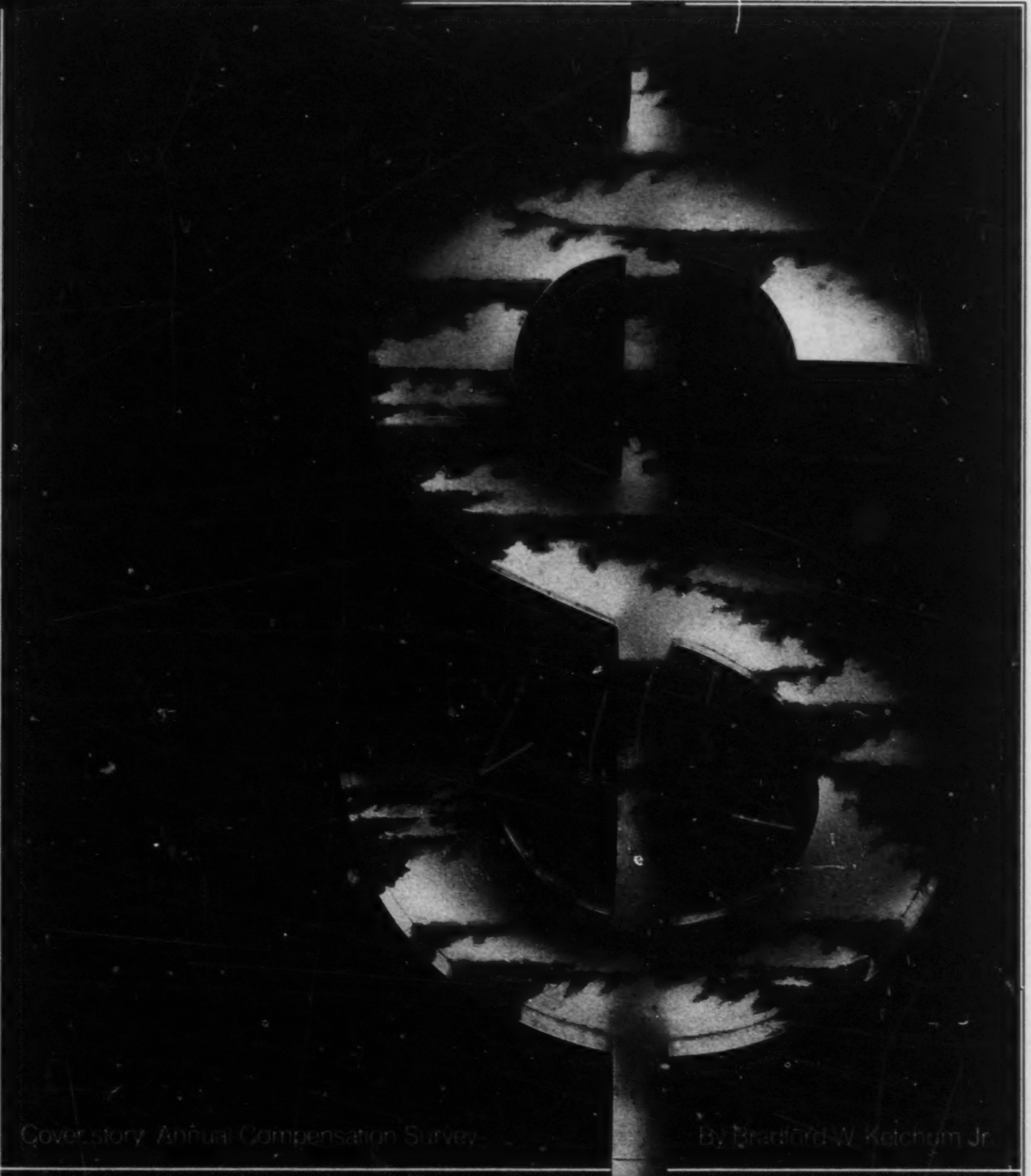

Cover story: Annual Compensation Survey

By Bradford W. Ketchum Jr.

WHAT MANAGERS MAKE

Insiders and outsiders alike have rarely been quite sure just who smaller-company middle managers are, let alone how much they make. While trade and [illegible] directors [illegible] data on middle-management compensation [illegible] smaller companies [illegible] extent. With this special report, INC. seeks to fill that information gap.

Sculpture by Nicholas Fasciano; painting by Bruce Sanders; photo by Jeffrey Coolidge.

In most cases, the smaller company middle manager is a department head, supervisor, or other manager who reports to a top executive. Based on an INC. study of more than 7,000 smaller enterprises, the average middle manager is a male in his late thirties who joined his company about eight years ago and has held his position for almost five years. Besides his base salary of $25,200, he earns a bonus of $4,200 but reaps few benefits beyond basic health-care coverage. The brightest factor in his 1982 pay picture was a 10.8% increase in salary.

Modest is the word that best describes middle-management pay levels in smaller companies. Counting base salary and cash bonuses, most middle managers earn from $25,000 to $30,000. The average is $27,900. Add the value of other compensation, including discretionary benefits, and the average total compensation package for middle management amounts to $31,400.

These and other figures emerge from INC.'s Second Annual Compensation Survey of more than 7,000 smaller businesses in the United States. The results, based on responses from more than 375 companies employing more than 925 middle managers, reveal the standards behind current management pay practices. The chief conclusions drawn from the INC. study are summarized in the tables on the following pages. They show that:

Bigger companies do not necessarily dole out fatter paychecks. While compensation for manufacturing and marketing positions generally relates directly to company size, bigger does not always mean better pay for managers in other functional areas. For example, general managers in companies with sales of only $500,000 earned more last year than their counterparts in companies with sales of $5 million. Accounting managers in companies with sales of less than $2.5 million made more than those in companies with sales of $10 million. And data-processing managers in companies with $1 million to $2.5 million in sales came out ahead of counterparts in many companies that are 10 times larger. In fact, they chalked up average total remuneration of $39,900, compared with $27,400 earned by data-processing managers in the largest companies.

Counting salary and cash bonus, most middle managers earn from $25,000 to $30,000.

A similar pattern emerges when figures are analyzed by size of work force. Total remuneration for accounting managers in companies with 50 to 99 employees averaged $24,400 in 1981, compared with $23,500 earned by those in companies with 100 to 299 employees. Total compensation for data-processing managers in the smallest companies (1 to 49 employees) averaged $32,600, compared with $29,200 for data-processing managers in the largest companies (300 or more employees).

Pay scales are tipped by industry and function. Overall, there are few differences in industry pay levels. Across all industries, the average total remuneration for all middle managers ranged from $25,600 in the wholesale/retail trade to $29,700 in manufacturing companies. When management pay is also measured in terms of function, however, some businesses emerge as consistently more generous than others.

Middle managers in the construction industry are the highest paid smaller company managers, chalking up average total pay of more than $30,000 in two out of three positions covered by the INC. survey. Manufacturers and service businesses rank second, with one out of three management jobs topping $30,000. At the bottom of the pay scale are wholesale/retail businesses, which generally bless only finance and sales managers with pay levels of $30,000 or more.

Interestingly, a comparison of the highest-paid and lowest-paid positions by industry and function shows that branch managers in construction earn top honors (average total remuneration: $38,800), followed by data-processing managers in the service businesses ($37,600), and chief engineers in manufacturing concerns ($36,000). Lowest paychecks overall are earned by office managers in the construction industry ($14,300), personnel managers in service companies ($16,800), and accounting supervisors in manufacturing ($17,500).

Cash constitutes the biggest chunk of the pay package. Salaries and cash

WHAT'S A MIDDLE MANAGER?

In most smaller companies, middle management is the only line of management between executives and all other employees. The positions covered in this report therefore include department heads, supervisors, foremen, and other managers who report to a top officer (vice-president or above) and who are generally responsible for one or more subordinates.

While some middle managers have several responsibilities, their titles reflect their chief, if not sole, function. Companies responding to this study provided information on 927 middle managers with 251 titles. The titles were used to identify six major functional groups and 13 sub-groups. Compensation data for each position was tabulated by group. Typical middle-management positions within each group include the following:

Major groups

GENERAL MANAGEMENT: General, division, department, assistant manager; supervisor; foreman.

FINANCE: Controller; accounting, credit, finance, audit, business manager.

OPERATIONS: Operations, office, store, branch, data processing, personnel, warehouse, plant, land manager.

MANUFACTURING: Engineering, plant, maintenance, purchasing, production manager; R&D director.

MARKETING: Marketing, sales, merchandise, advertising, public relations manager.

OTHER: Service, parts, body-shop manager.

Sub-groups (positions included)

Controller
Accounting manager
Data-processing manager
Personnel manager
Service manager (national service, customer relations manager)
Store/branch manager (station manager)
Warehouse manager (distribution, transportation, fleet manager)
Office manager
Engineering/R&D manager (chief engineer; technical director; development, design manager)
Plant manager (plant foreman)
Purchasing manager (purchasing director, agent; material manager)
Production manager (shift, shop supervisor; quality assurance manager; shop, press foreman)
Sales manager (district, field, counter manager)

bonuses add up to more than 85% of the total compensation of smaller company managers. More than three out of four companies (79%) provide bonuses and, of those, 97% pay cash. (The remaining 3% offer stock bonus plans.) Last year, the average management bonus ranged from $3,200 for general managers to $6,600 for marketing managers, up from $2,500 and $5,800, respectively, in 1980.

While more than four out of five middle managers receive bonuses, business conditions apparently created a few minor shifts in bonus distribution last year. Fewer general and operations managers reaped bonuses, while finance managers saw their average bonuses shrink from $5,300 to $5,100.

Middle-management pay, like executive pay, is tied directly to performance and results in most cases. Two out of three smaller companies base their bonus payments on company profitability—the bottom-line results that directly reflect management performance. Another 30% also tie bonuses to department performance, while 15% cite company sales and individual effort as criteria. Only 5% award bonuses solely on the basis of executive discretion.

Fringes offer few frills. Health-care coverage is almost universal among management benefits. Beyond typical medical, life, and disability insurance, however, perquisite packages are highly conservative, if not limited. Profit-sharing programs and company cars are the most popular noninsurance perks, followed by pension plans. However, in each case, availability depends on company size. For example, among companies with sales of less than $5 million, only two out of five provide profit-sharing or company cars. Only one out of four offers pension benefits. In the $5 million-to-$10 million sales range, however, more than half the companies offer profit-sharing and company autos, and one out of three provides a pension plan.

The relative value of middle management's discretionary benefits, which generally represent about 12% of total compensation, is unlikely to increase. Insurance coverage, profit-sharing plans, and retirement benefits may be revised and expanded, but cash-related compensation will continue to serve as the primary motivator.

Two out of three companies boosted management pay for 1982. The average raise was 10.8%.

Business conditions create ripples in pay decisions. Overall, two out of three smaller companies boosted management compensation for 1982. By company size, the smallest businesses granted fewer—but more generous—raises. Average salary bumps ranged from 12.4% among businesses with sales of less than $1 million, to 9% among companies with sales of $5 million to $10 million. However, only 55% of the smaller companies awarded pay raises, versus 70% of the larger companies.

The number of companies that boosted middle-management salaries ranged from 52% of those in the construction business to 73% of the professional service companies. Most raises hovered around the 11% mark, ranging from an average of 9.5% meted by manufacturing companies to 12.9% in the professional services field.

Seventy percent of the respondents to the INC. survey indicated that they made no pay changes that were directly related to business conditions. However, among those who did react to the continued business crunch by modifying management compensation, the strategies went beyond simple salary pinches. Of the 103 companies that indicated shifts in pay policies due to sluggish economic conditions, 38% restricted raises, and 14% waived them altogether. Another 19% imposed management pay cuts, and 6% trimmed their benefits packages. A number cut back on the use of company cars and instituted tighter controls on expense accounts. Beyond these tactics, 1 out of 10 companies also instituted tougher performance standards, consolidated management responsibilities, or deferred hiring decisions.

Besides these insights on middle-management pay levels and practices, the INC. study also reveals several other characteristics of smaller company managers. Four principal points emerge from the survey results:

1. Few middle managers are oldtimers. In most cases, regardless of function, company size, or industry, the average age of middle management ranges

PROFILE OF MIDDLE MANAGERS (AVERAGE)

	General Management	Finance	Operations	Mfg.	Marketing	Other
1981 total remuneration	$27,200	$28,300	$25,100	$29,800	$32,000	$25,700
Base salary	25,000	24,900	22,800	27,000	28,000	24,200
Cash bonus	3,200	5,100	3,400	4,400	6,600	2,500
(% of mgrs. receiving)	87%	87%	81%	88%	91%	75%
Other compensation	2,700	4,100	3,700	3,500	4,000	2,100
(% of mgrs. receiving)	61%	67%	68%	76%	76%	54%
1980 total remuneration	$25,000	$26,300	$22,100	$27,200	$27,600	$23,000
Base salary	23,100	23,000	20,100	24,800	24,500	21,700
Cash bonus	2,500	5,300	2,800	3,900	5,800	2,400
(% of mgrs. receiving)	91%	82%	89%	86%	89%	70%
Other compensation	1,500	2,900	1,900	2,600	3,700	1,800
(% of mgrs. receiving)	58%	55%	59%	67%	75%	46%
Age	38	38	37	41	39	39
Years in position	4	5	4	6	4	5
Years with company	7	8	7	9	7	7
Ownership (% of respondents)						
None	91%	84%	88%	83%	84%	92%
Less than 5%	7	10	7	12	10	5
More than 5%	2	6	5	6	6	3

The average middle manager earns $25,000 to $32,000, including salary and bonus. While more than 8 out of 10 receive bonuses, salary generally accounts for about 90% of total pay The majority also receive other compensation, ranging in value from $2,100 to $4,100 and including deferred income and other discretionary benefits. Very few boast equity ownership in their company. Comparison of 1980–81 figures shows salary increases ranging from 8.2% for general management to 14.3% for marketing managers.

from 37 to 41. The oldest are those in manufacturing and marketing positions in companies with sales of $10 million or more, where about half of the managers fall in the 40-to-55 age bracket. Youngest are operations managers in companies with sales of $1 million to $5 million. More than three out of four of these managers are under 40. They include data-processing managers, four out of five of whom have yet to reach 40.

In terms of experience and seniority, most middle managers have been with their companies less than 10 years and have held their current positions an average of 5 years. Again, those in manufacturing functions tend to be far more seasoned than those in the operations areas. Not surprisingly, the experience of data-processing managers is testimony to recent recruiting and hiring activity among smaller companies. In short, indicating direct entry into the management ranks, the average data-processing manager has spent three years with the company in the same position.

2. Middle managers come in fours. And chances are, one of them is a woman (see box). Smaller company management ranks average 3 top executives and 4 middle managers. The depth of middle management is directly related to company size. Those companies with sales of less than $1 million, for example, employ an average of 2 middle managers. Companies in the $2.5 million-to-$5 million sales range average 5 middle managers; those in the $5 million-to-$10 million category average 7; and companies with sales of $10 million or more employ 11 middle managers.

The leanest management rosters are maintained by wholesale/retail businesses, which employ an average of four middle managers. Manufacturing companies and service businesses boast the highest number, with an average of seven.

3. Formal job descriptions are few and far between. Contributing to the lack of understanding about middle managers and their roles in smaller businesses is the fact that most companies—63%—have no formal job descriptions for middle management. In other words, in about two out of three cases, organizational structure has simply evolved and management responsibility remains loosely defined.

The lack of formal job descriptions appears unrelated to company size. Least likely to have a clear outline of manage-

PAYCHECKS BY STAFF SIZE: $20,000-PLUS BECOMES THE RULE

Average Total Remuneration ($ thousand)

	No. of company employees			
Function	**1-49**	**50-99**	**100-299**	**300 or more**
General management	$23.6	$25.1	$35.0	$51.2
Finance	25.7	31.2	30.3	32.9
Controller	28.3	32.8	32.4	32.3
Accounting	22.4	24.4	23.5	30.3
Operations	22.4	28.5	29.6	35.4
Data processing	32.6	27.3	28.6	29.2
Personnel	22.1	15.3	25.0	34.8
Service	24.3	23.5	41.3	45.1
Store/branch	23.4	23.7	36.0	40.1
Warehouse	17.8	20.3	25.8	27.6
Office	17.6	30.1	28.3	–
Manufacturing	25.8	29.7	33.1	41.8
Engineering/R&D	28.9	34.2	42.6	46.5
Plant	25.8	28.8	38.3	37.8
Purchasing	19.3	31.4	26.2	48.4
Production	25.7	26.7	27.8	38.4
Marketing	28.1	37.2	40.1	39.8
Sales	28.5	37.2	40.6	40.6

Most middle managers in companies with fewer than 100 employees earn less than $30,000. The exceptions are those who perform data processing, engineering, or sales functions. Those in companies with more than 100 employees generally fall in the $30,000-to-$40,000 pay range. On average, few middle-management positions, regardless of company staff size, top $40,000. Overall, 61% of the managers earn less than $30,000, 34% make from $30,000 to $49,999, and only 5% top $50,000.

MIDDLE-MANAGEMENT PAY BY INDUSTRY: CONTRACTORS LEAD, SERVICE COMPANIES TRAIL

Average Total Remuneration ($ thousand)

	Annual company sales					
Function	**Manufacturing**	**Wholesale/ Retail**	**Services/ Business**	**Services/ Profess.**	**Construction**	**Other**
General management	$29.9	$20.7	$32.1	$27.7	$33.1	$26.8
Finance	27.6	28.8	34.2	26.7	27.5	27.6
Controller	29.1	32.8	30.0	28.1	30.3	36.3
Accounting	17.5	21.4	36.2	23.9	21.8	20.7
Operations	26.1	24.2	25.6	26.2	23.0	25.2
Data processing	30.4	29.6	37.6	23.6	–	–
Personnel	31.6	24.0	16.8	22.0	–	25.4
Service	25.7	24.0	24.4	33.2	31.2	39.9
Store/branch	24.3	23.5	23.2	28.8	38.8	36.5
Warehouse	23.5	19.6	23.7	–	–	24.0
Office	21.2	20.7	18.0	21.5	14.3	20.3
Manufacturing	30.2	25.6	28.1	29.8	30.9	33.9
Engineering/R&D	36.0	–	–	30.9	34.0	40.3
Plant	30.8	22.4	24.7	–	33.4	32.7
Purchasing	28.8	27.5	–	–	29.2	–
Production	25.8	26.2	27.7	29.8	30.3	32.9
Marketing	35.2	31.0	31.4	28.9	36.0	26.7
Sales	35.2	31.3	31.4	28.4	36.0	28.5

The highest-paying jobs are in the construction industry, where two out of three middle managers make more than $30,000, on average. Other top-paying jobs include financial and data-processing positions in the service businesses. Lowest pay levels are found in the wholesale/retail industry, where remuneration ranges from $19,600 to $31,300, with an average of $25,600 for all middle managers.

ment responsibilities are companies with sales of less than $1 million. However, companies in the $1 million-to-$2.5 million sales range are better organized than those with sales of more than $10 million when it comes to formal job descriptions for middle management. The number of companies with written job definitions in these two groups is 51% and 46%, respectively.

By industry, the amount of businesses that have spelled out their middle management responsibilities ranges from 28% among wholesaler/retailers to 48% of the construction companies.

4. The accent is on middle-management development. More than 70% of the respondents to the INC. survey indicated that they encourage management training and development. In general, the primary emphasis is on education, ranging from outside seminars to correspondence courses and participation in trade associations. Not surprisingly, the larger the company, the more likely it is that management training will be emphasized.

Among respondents, 84% encourage their managers to attend outside seminars, 48% endorse college courses, and

HOW MANY WOMEN WIN MANAGER ROLES?

Women occupy middle-management slots in more than half of the smaller companies that responded to the INC. survey. While 47% of the respondents reported no women in their middle-manager ranks, 53% employ at least one woman manager.

Generally, service companies offer women more opportunities than manufacturing companies. Three out of five service businesses employ women in management, versus only two out of five manufacturers. Not surprisingly, company size is also a factor. The larger the company, the more likely it is that its management ranks include women.

Among the larger companies (sales of $5 million or more), 58% employ women in management roles. Of those, 38% have one woman manager, 4% have two, and 16% have three or more. Among the smallest companies (sales of less than $1 million), the ratio is far less favorable to women. The majority (55%) have no women in middle management. Of the remaining companies, 35% report only one woman with management responsibilities.

No attempt was made to compare the compensation levels of men and women. But women are best represented in the office management functions, which, the survey shows, are the lowest paying (average remuneration: $19,700). However, women have also landed some of the highest-paying management jobs, which include sales and marketing positions (average pay: $32,000).

Women win fewest roles in the manufacturing and service functions, which include engineering and maintenance.

Number of women	Percent of respondents
None	47%
One	34
Two	10
Three	5
Four or more	4
Average no.: 1	

Function	
Office	39%
Finance	24
Sales	19
Marketing	12
Gen. management	9
Personnel	9
Operations	9
Accounting	9
Data processing	6
Production	5
Warehouse	5
Store/branch	5
Purchasing	3
Manufacturing	2
Service	1

Total exceeds 100% because of multiple responses.

PAYCHECKS BY SALES SIZE: ENGINEERS EARN TOP DOLLAR

Average Total Remuneration ($ thousand)

		Annual company sales					
Function	**All respon.**	**Up to $500,000**	**$500,000-$999,999**	**$1 mil.-$2.4 mil.**	**$2.5 mil.-$4.9 mil.**	**$5 mil.-$9.9 mil.**	**$10 mil. or more**
General management	$27.2	$19.4	$23.6	$27.2	$27.5	$23.2	$34.2
Finance	28.3	22.5	22.1	28.2	31.0	27.7	31.5
Controller	30.7	25.0	24.0	29.5	31.6	29.4	34.1
Accounting	24.1	21.0	22.0	24.7	15.8	25.8	20.2
Operations	25.1	21.0	24.7	22.3	23.0	24.6	36.5
Data processing	30.7	25.5	–	39.9	36.3	23.6	27.4
Personnel	26.9	–	22.0	15.3	14.0	25.5	32.9
Service	26.7	22.5	20.4	23.7	24.6	26.1	38.7
Store/branch	26.3	14.5	26.6	22.4	21.0	31.1	46.9
Warehouse	21.0	17.9	–	20.2	18.4	20.0	27.2
Office	19.7	19.8	16.4	16.7	18.8	20.8	35.1
Manufacturing	29.8	21.2	20.9	28.5	30.3	30.2	37.6
Engineering/R&D	35.0	25.2	20.7	33.8	34.8	40.2	43.7
Plant	29.4	23.2	21.8	27.1	26.5	32.2	39.9
Purchasing	28.5	14.0	–	20.1	34.0	25.7	31.3
Production	27.9	19.6	20.5	30.8	28.9	27.2	33.3
Marketing	32.0	24.5	16.9	29.9	32.4	34.2	44.3
Sales	32.4	24.5	17.0	30.7	33.1	34.2	45.5

Middle-management paychecks do not necessarily keep pace with company size, particularly for general management, accounting, and data-processing positions. Generally, however, the highest-paying jobs are in engineering/research and development, followed by sales and marketing. Lowest on the payroll totem pole are office and warehouse managers.

40% sponsor membership in professional organizations or societies that offer training programs. Other efforts include in-house training (11%), active trade group participation (5%), and correspondence courses (3%).

In summarizing the problems of dealing with middle management, respondents cited training as a major hurdle—second only to motivation. Indicative of their intent to solve the problem, 84% report that their companies reimburse middle managers for job-related educational expenses. ☐

Bradford W. Ketchum Jr. is a senior editor at INC.*; assistance was provided by Richard A. Powers,* INC. *research director.*

BEYOND PAYCHECKS: PERKS AT WHAT COST?

Benefit	% of respondents offering benefit	% of benefit paid by the company 100	50-99	1-49
Hospital/medical insurance	97	75[1]	22	3
Life insurance	82	87	11	2
Disability Insurance	55	83	14	3
Profit-sharing	43	95	3	2
Company car	42	88	9	3
Pension	31	79	14	7
Dental insurance	28	79	19	2
Club membership	13	82	15	3
Low-interest loans	10	–	–	–
Stock ownership (ESOP)	8	–	–	–

[1] % of the companies providing benefit

Function	Average value of deferred income, options, other discretionary benefits 1981	1980
General management	$2,700	$1,500
Finance	4,100	2,900
Operations	3,700	1,900
Manufacturing	3,500	2,600
Marketing	4,000	3,700
Other	2,100	1,800

Most middle managers are covered by medical, life, and disability insurance. Beyond these common benefits, profit-sharing and company cars are provided by two out of five companies. Dental coverage, club privileges, and employee stock ownership are far more the exception than the rule. Where benefits are offered, 100% of the cost is underwritten by at least three out of four employers. The average value of compensation beyond base salary and bonus ranges from $2,100 to $4,100.

THE FACTS BEHIND THE FIGURES

This report represents INC.'s Second Annual Compensation Survey. It summarizes a national study of middle management compensation levels and policies in a broad cross-section of smaller businesses. The primary research for the report was conducted in June. A four-page questionnaire was mailed to a random sampling of 7,024 INC. subscribers. Excluding undeliverable, incomplete, and late returns (those received beyond a June 10 deadline), the net response rate was 5.4%. Some 377 usable returns were then delivered to an independent computer facility for tabulation and cross-reference summaries.

Confidentiality of all information was assured. No company or individual respondent was identified. The responses represent 377 companies that provided compensation data on a total of 927 middle managers. In 76% of the cases, the information was submitted by a top officer, including chairman, president, or owner/partner.

Located in 40 states and the District of Columbia, the respondents also represent 78 four-digit Standard Industrial Classifications within 11 broad industry categories. The majority are in manufacturing (27%) or wholesale/retail business (27%). Other major groups include service/business (16%), service/professional (13%), and construction (8%). Ninety-two percent are corporations, 5% partnerships, and 3% proprietorships. Only 6% are publicly held.

The vital statistics of the respondents as a group include the following averages:

Net sales	$3,902,000	Number of top executives	3
Net income (after taxes)	$162,500	Number of middle managers	4
		Total remuneration	$27,900
Number of employees	74	Base salary	$25,200
Total 1981 payroll	$971,000	Cash bonus	$4,200

HOW BIG ARE BONUSES?

Cash bonus	No. of company employees 1-49	50-99	100-299
None	15%[1]	12%	18%
$1,000–$4,999	57	64	56
$5,000–$9,999	15	10	14
$10,000–$19,999	10	10	7
$20,000 or more	3	4	5

[1] % of the middle managers, 1981

SALARY INCREASES FOR '82

1982	Percent of respondents
Increased salaries	64%
Did not increase salaries	36%

Industry	Average Increase	Size of raise 1-9%	10-14%	15%+
Mfg.	9.5%	54[1]	39	7
Whsle./retail	10.6	33	50	17
Service/business	11.0	46	38	16
Service/profess.	12.9	30	37	33
Construc.	12.2	23	54	23
All respon.	10.8	42	41	17

[1] % of the companies giving raise

Two out of three companies increased middle-management salaries this year. Among those who granted raises, 42% kept the increases below 10%, and 41% awarded increases of 10% to 15%. The average raise was 10.8%.

THE 10 BIGGEST PROBLEMS WITH MIDDLE MANAGERS

Problem	Percent of respondents
1. Motivation, defining roles and goals	38%
2. Training	24
3. Recruitment	17
4. Turnover	9
5. Skills with subordinates	6
6. Communication with top management	5
7. Quality adherence and accountability	4
8. Creativity, generating innovative ideas	4
9. Too many the same age	2
10. Room for advancement	1

(Total exceeds 100% because of multiple responses.)

More than one out of three companies cite motivation as the chief hurdle in dealing with middle managers. Other problems range from training and recruitment to creating opportunity for advancement.

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Inc.

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GROWING COMPANIES

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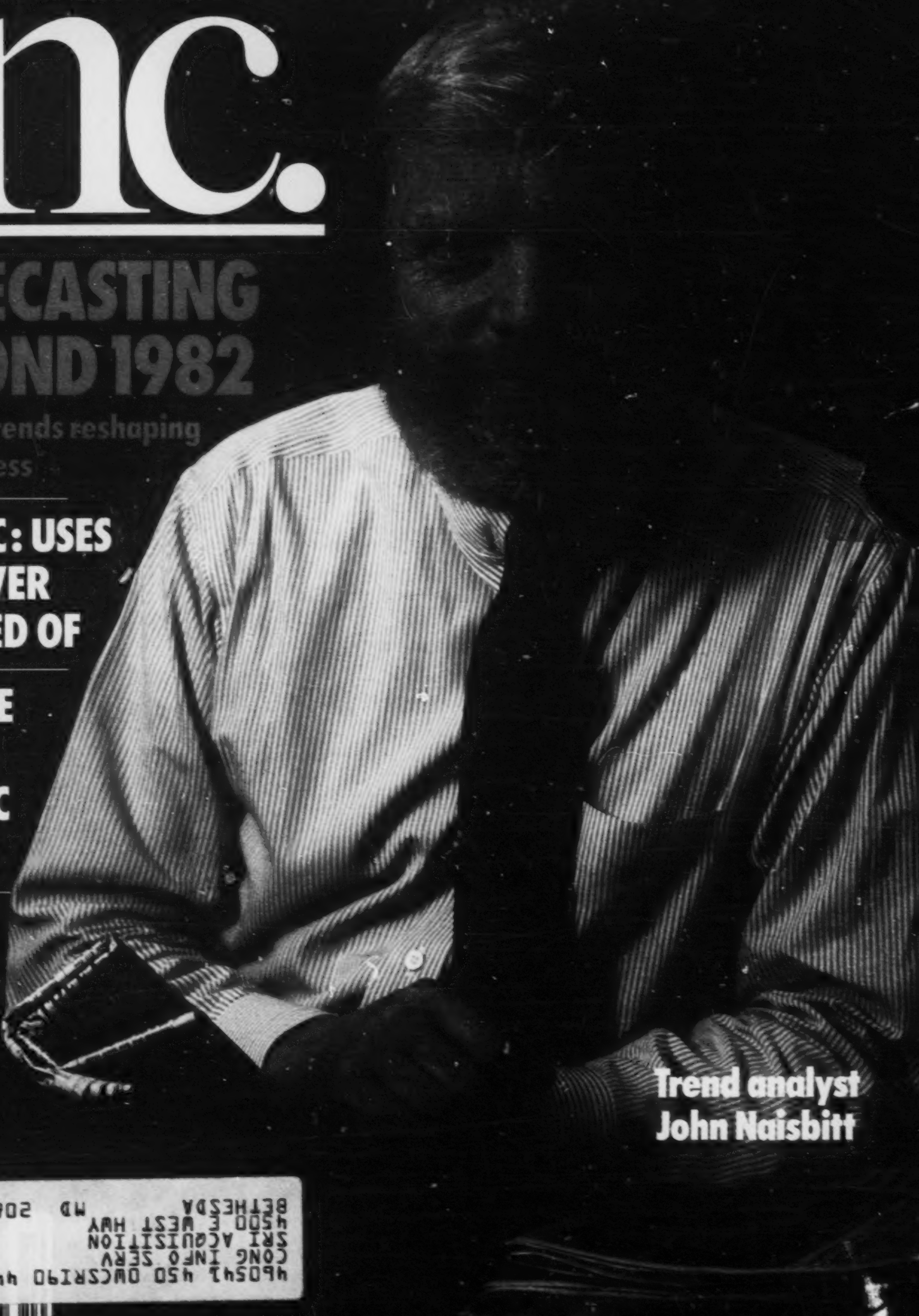

Trend analyst
John Naisbitt

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OCTOBER 1982

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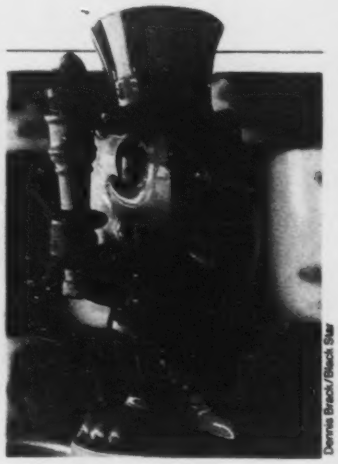
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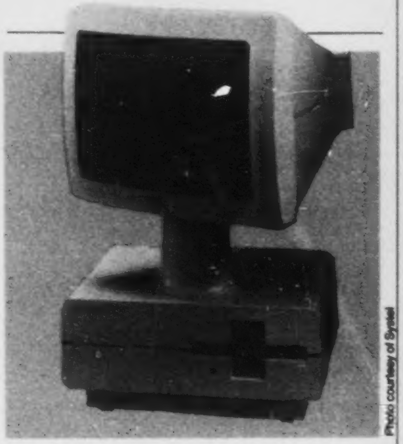

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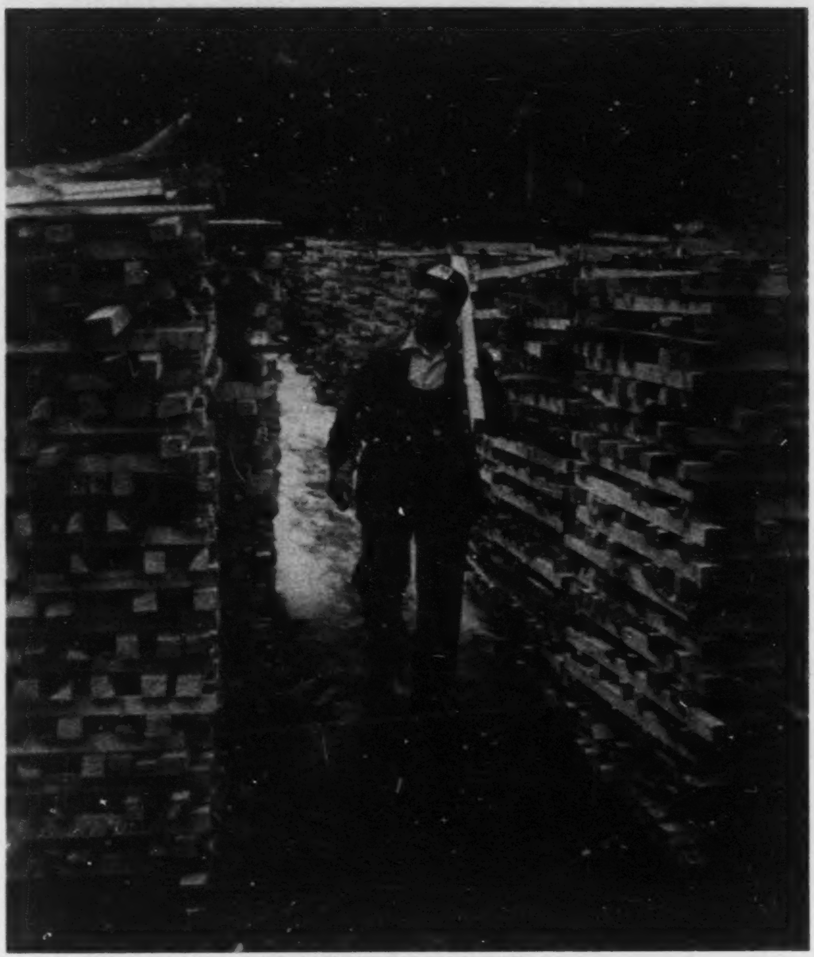

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A REPORT ON THE STATES

INC.'s second annual study rates 50 small business climates.

By Bruce G. Posner

If your company's history is anything like that of most small companies, where it is located—be it Palo Alto, Calif., or Portland, Maine—has nothing to do with any carefully drawn corporate plan Instead, you put the business where you were raised, attended school, or simply wanted to live. Presumably, the area had much of what you wanted of the myriad things that influence "quality of life." Perhaps there was good skiing, music, or a major university within easy reach. Or you may have wanted to be near people in similar vocations, which may be why so many high-technology companies grew or are expanding in California's Silicon Valley and along Boston's Route 128.

Although state officials everywhere wish they could do more to spawn and keep growth-oriented companies, all too often they find that it is hard enough to define the amenities that attract small businesspeople without trying to influence a decision to set up business. But apart from the intangibles in appraising a business climate, there are factors that are both more concrete and, to some extent, within a state's control.

As companies grow, for example, they may need long-term debt and equity, in addition to working capital. They may also need to hire employees who have specialized skills. A company's inability to find such fundamental resources when they are needed can greatly influence its success, and it can also dampen the growth of the economy within the state.

The purpose of INC.'s second report on the states is to compare some of the major, quantifiable aspects of the climate for small business, to help businesspeople and state officials understand better how to make improvements. In selecting the criteria for measuring the 50 states as homes for smaller companies, INC. interviewed economists, state development officials, venture capitalists, and small business executives. INC. also talked with special liaison people appointed by governors to gather information on small business support programs in every state.

The analysis focused on areas of broad concern to all small companies, rather than such factors as transportation and energy, important as these may be to some businesses. Since all small business operators have capital and labor needs and are affected by taxes, we looked at the impact of those three factors on small companies. Growth opportunities in a particular environment are also influenced—sometimes heavily—by external economic and business factors. These factors, therefore, are reflected through a number of criteria under the heading of business activity.

Finally, we examined each state for small business support programs initiated at the executive or legislative level. The mere existence of official support does not

Illustrations by Michael Blaser

RATING THE STATES BASED ON FIVE MAJOR FACTORS

	CAPITAL RESOURCES				LABOR				TAXES
Rank/state	**Bank loans % assets**	**Comm./ind loans per capita**	**SBIC finan. per 1,000 pop.**	**State programs**[1]	**Avg. wkly. wage**	**% union**	**% H.S. grads.**	**Value added per worker (thou./yr.)**	**Per $1,000 personal income**
Median	53.5%	$ 927	$0.8	–	$317	23%	68%	$43.6	$112
1. Texas	54.8%	$2,527	$3.9	DL	$328	11%	65%	$55.1	$ 98
2. California	64.7	1,468	3.2	DL,LG	339	27	74	48.0	122
3. Colorado	57.9	1,262	3.1	–	326	18	78	45.7	113
4. Florida	49.5	598	1.2	–	265	12	65	37.0	97
5. New Hampshire	63.2	588	1.8	LG	256	16	70	31.2	92
6. Kansas	48.4	1,082	1.4	–	325	15	73	44.0	100
7. Arizona	62.6	888	0.6	–	317	16	73	47.7	133
8. Oregon	58.8	1,112	1.8	DL	352	26	76	39.0	114
9. Oklahoma	52.8	1,921	1.2	DL	329	15	66	42.2	102
10. Washington	58.9	1,382	0.9	–	405	34	76	49.5	109
11. New Mexico	52.7	1,043	2.3	–	259	19	66	36.0	122
12. New York	54.4	4,164	2.2	DL,LG,BG	309	39	66	47.2	163
13. Kentucky	49.2	773	1.0	DL,BG	309	24	53	45.6	104
14. North Dakota	50.1	1,245	–	BG	271	17	68	52.6	102
15. Connecticut	59.7	857	5.1	DL,LG,VC	319	23	70	42.8	105
16. Virginia	60.0	718	0.9	–	270	15	64	36.0	102
17. Nevada	59.5	738	0.3	LG	325	24	76	51.0	105
18. Massachusetts	50.0	1,213	2.1	DL,BG,VC	280	25	72	40.0	139
19. Minnesota	54.5	1,430	2.7	DL	331	26	73	45.5	127
20. New Jersey	53.1	765	0.9	DL,LG,BG	322	26	66	47.4	117
21. Utah	56.5	838	0.1	–	308	18	80	40.4	125
22. Arkansas	52.1	946	0.2	BG	247	16	56	30.4	99
23. Georgia	52.8	683	1.0	–	255	15	59	33.3	108
24. Tennessee	51.9	908	0.5	–	268	19	55	33.7	94
25. Wyoming	53.4	1,541	2.6	–	314	19	76	61.4	148
26. Mississippi	50.6	639	0.8	LG	236	16	52	31.6	109
27. Montana	55.1	1,176	1.2	–	370	29	73	47.9	130
28. Maryland	57.1	555	0.3	DL,LG,BG	335	23*	69	43.7	120
29. Missouri	47.4	1,112	0.1	BG	318	28	64	43.6	93
30. Ohio	50.4	757	0.6	DL,LG	390	31	68	46.6	94
31. Rhode Island	55.0	1,426	0.4	DL,LG,BG	240	28	62	28.4	119
32. Idaho	55.8	944	3.5	–	311	18	72	36.0	104
33. Illinois	58.7	2,841	0.7	DL	356	30	66	47.0	112
34. North Carolina	51.4	804	0.5	–	232	10	55	30.6	106
35. Wisconsin	55.8	853	0.6	DL	353	29	70	43.6	125
36. Michigan	54.3	909	0.7	DL	426	37	69	47.6	115
37. Pennsylvania	53.5	1,365	0.5	DL	325	35	65	38.5	116
38. Vermont	66.3	712	1.3	DL,LG	272	18	70	36.6	127
39. Hawaii	60.6	992	0.1	DL	290	28	73	45.1	148
40. Iowa	48.6	854	0.1	DL	379	22	72	51.0	111
41. South Dakota	67.5	1,039	1.5	–	296	15	69	36.6	106
42. Indiana	51.4	726	0.3	DL,LG,VC	376	30	67	43.5	88
43. Nebraska	50.6	965	0.2	–	324	18	74	46.7	111
44. Louisiana	52.2	1,231	1.6	DL,LG	362	16	58	64.9	116
45. Alaska	45.0	978	0.2	DL,BG,VC	457	34	80	54.2	368
46. Alabama	48.7	664	0.7	–	280	22	56	30.8	96
47. South Carolina	48.2	361	0.6	–	250	8	57	27.3	107
48. Maine	54.1	502	0.5	DL,LG	296	24	68	27.8	125
49. Delaware	46.3	551	–	–	333	25	70	49.4	116
50. West Virginia	49.8	499	0.1	DL,LG	347	34	53	43.5	112

1. DL-direct loans, LG-loan guarantees, BG-bond guarantees, VC-venture capital
2. AO-advisory office, OM-ombudsman, AC-advisory council, LC-legislative committee, SC-statewide conference, PS-procurement set-asides

* Includes union membership in District of Columbia.

STATE SUPPORT	BUSINESS ACTIVITY				
Small bus. assistance[1] (1971-80)	Pop. % change (1971-80)	Employmt. % gain (1971-80)	Pers. inc. % change (1971-80)	Business units per 1,000 pop.	INC.100 companies (1979-82)
–	11.5%	27.7%	45.4%	46	2
AO,OM,AC,LC,SC	27.1	67.8	77.4	47	27
AO,OM,AC,LC,SC	18.5	41.6	48.7	46	49
AO,OM,AC,SC	30.7	61.0	74.2	50	13
AO,OM,LC,SC,PS	43.4	65.9	77.1	55	10
AO,LC,SC,PS	24.6	47.9	56.7	46	2
AO,AC,LC,SC,PS	5.3	63.2	43.5	46	1
AO,OM,AC,SC,PS	53.3	79.7	88.7	49	3
AO,OM,AC,SC	26.5	46.5	64.3	51	4
AO,SC,PS	17.2	46.6	65.6	49	6
AO,LC,SC,PS	21.0	25.1	60.4	47	4
AO,OM,SC,PS	24.7	58.0	67.6	50	2
AO,OM,AC,LC,SC,PS	-3.3	0.6	9.1	46	31
AO,OM,AC,LC,SC,PS	13.7	41.8	44.4	40	1
AO,AC,LC,SC	5.6	50.5	45.5	54	–
AO,OM,PS	2.5	17.0	26.7	43	6
AO,OM,SC	11.8	39.6	50.3	39	5
AO,LC,SC	63.8	96.8	92.0	50	1
AO,OM,LC,SC	0.8	17.1	21.3	40	12
AO,OM,LC,SC	6.9	34.6	37.9	41	18
AO,OM,AC,LC,SC	2.7	17.2	22.2	44	16
AO,OM,AC,SC	37.9	32.6	70.3	48	1
AO,AC,SC,PS	18.5	38.9	60.3	45	0
AO,OM,AC,LC	17.8	37.8	49.7	45	6
AO,OM,AC,SC,PS	13.0	13.3	50.0	42	4
–	41.1	88.6	123.1	57	4
AO,OM,AC,LC,SC	12.9	34.4	50.0	44	1
AO,AC,SC,PS	13.3	42.4	42.3	56	–
AO,AC,LC,SC,PS	7.5	25.6	34.2	35	5
AO,OM,LC,SC,PS	5.1	18.5	31.9	44	1
AO,OM,AC,LC,SC	1.0	13.3	24.9	40	3
AO,AC,LC,SC,PS	-0.4	15.8	25.0	47	–
–	32.3	58.7	61.5	50	–
AO,OM,AC,LC,SC,PS	1.2	14.5	23.9	41	–
AO,AC,LC,SC	15.5	33.8	45.2	41	1
AO,OM,AC,LC,SC	6.5	27.1	36.5	40	3
AO,OM,AC,SC,PS	4.2	15.0	32.6	37	2
AO,OM,AC,SC,PS	0.2	8.6	24.9	42	6
AO,SC	15.0	35.1	29.4	54	–
AC,LC,SC	25.3	37.5	41.0	52	2
OM,AC,LC,PS	3.1	24.7	31.9	47	1
AC	3.8	36.0	30.4	50	–
OM,SC,PS	5.7	17.4	31.0	39	6
AO,OM,SC	5.3	30.7	34.4	49	–
AO	15.3	51.8	65.8	46	1
OM,SC	32.5	84.3	93.3	49	1
OM,SC,PS	12.9	34.4	50.9	41	2
AO,SC,PS	10.8	41.0	53.0	42	3
AO,OM,AC	13.2	26.3	38.9	49	–
AO,OM,AC,LC,PS	8.6	21.3	29.6	44	–
AO,OM,LC,SC,PS	11.8	25.1	49.1	43	–

Sources (by column, left to right): Federal Deposit Insurance Corp. (1,2); U.S. Small Business Administration (3); State development agencies (4); U. S. Department of Labor, Bureau of Labor Statistics (5,6); U.S. Department of Education (7); Bureau of Census, Census of Manufacturers (8); Tax Foundation (9); INC. survey of 50 states (10); Bureau of the Census (11); Bureau of Labor Statistics (12); U.S. Department of Commerce, Bureau of Economic Analysis (13); Bureau of the Census, County Business Patterns (14); INC. (15).

guarantee that significant numbers of small companies are being helped. However, support for innovative programs and a strong commitment to small business at high levels can be enormously useful. Through special programs, a state can leverage its existing capital and labor resources to the benefit of small businesses. State support can also soften the effects of a declining economy.

INC. ranked the 50 states in five categories. Each category—capital, labor, taxes, business activity, and state support—was weighted to reflect its relative importance to small companies. The scoring system was based on a scale of 100 points. Because most of the experts we spoke with considered capital resources and state support the two most critical factors, each was given 25 points. Taxes, while always an area of real concern, received only 10 points, the lowest weighting, since taxes rarely play more than a minor role in the investment decisions of small companies. Labor and business activity were each weighted at 20 points to reflect their broad significance to smaller companies. Calculated by this method, the overall scores range from 82 for Texas to 33 for West Virginia.

Texas achieved the top overall ranking with an unbeatable combination of strong capital resources, an effective labor force, and a low tax burden. But it was further aided by a high level of business activity within the state and official support for small business. California and Colorado, with higher tax rates than Texas, placed second and third, respectively, largely because of their strength in capital and labor. Each also received a very helpful boost from a robust economy.

Fourth-ranking Florida scored very favorably in labor, taxes, business activity, and small business support, but appeared in the bottom 10 for capital resources. For the other states scoring low in capital, such as West Virginia and Delaware, the impact on the overall ranking was often devastating. They did not compensate as well as Florida did with strengths in other areas.

West Virginia, for example, ranked 50th overall and scored weakly on labor and business activity and only average in taxes and small business support. Its ranking of 49th in capital resources—low lending activity compared with bank assets—compounds its weakness in other areas. Delaware, although somewhat stronger than West Virginia in labor and business activity, also suffers from its poor showing in capital. It ranks last in the capital category and 49th overall. In fact, four of the five lowest-ranking states on the summary table (West Virginia, Delaware, South Carolina, and Alabama) are the weakest four states for capital resources. The fifth state, Maine, ranks 48th overall and also suffers in terms of capital.

The influence of other categories, while important, proved less decisive in a state's ranking. Although 7 of the top 10 states had very favorable climates for labor—only Oregon, Oklahoma, and Washington did not—poor performers in labor (reflecting such factors as high levels of wages, low level of education, and the strong presence of organized labor) did not automatically suffer in the overall rankings. In fact, only three states scoring low in labor—Indiana, West Virginia, and Alabama—appeared in the bottom 10 overall. Other high-wage and highly unionized states, such as Ohio, Illinois, Michigan, and Pennsylvania, ranked higher because of stronger showings in other areas.

At first glance, Indiana's rank of 42 seems surprisingly weak in relation to such midwestern neighbors as Illinois and Michigan. While none of these states ranks very favorably in terms of labor or business activity—measures by which Illinois ranks at the very bottom—Indiana distinguishes itself by having the lowest taxes (per $1,000 of personal income) in the nation, while Illinois and Michigan fall in the middle.

Nevertheless, Indiana parts company from Illinois and Michigan in small business support activities. Unlike Michigan, for example, Indiana has neither a small business assistance office nor a governor's advisory council on small business. It also lacks a legislative committee devoted to small business matters, as Illinois and 11 other states have had and as 9 states have now added. To Indiana's credit, though, its officials have recently shown an interest in bolstering small business capital resources through the state's new Corporation for Innovation Development (see page 100).

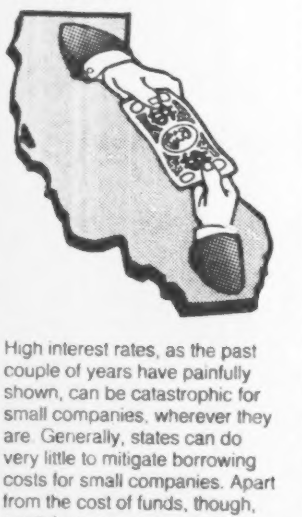
A careful examination of the accompanying table shows that even states that appear quite similar can differ dramatically. But the most useful discovery may be that each of the 50 states has its own set of strengths. The Midwest and the New England states, for instance, are clearly not seeing the same heady growth as Texas and California. But both regions can become vibrant areas for small companies.

Increasingly, states concerned about the future are examining their support programs as the most obvious way of upgrading their climate for small business. Delaware, for example, made notable strides in the past year when it created four support vehicles—an advisory council, a legislative committee, an assistance office, and a program requiring the state to purchase goods and services from small companies.

THE BEST OF SHOW

Capital: Activity at the money centers

1. California
2. Connecticut
3. New York
4. Texas
5. Massachusetts
6. Minnesota
7. Colorado
8. Illinois
9. Oklahoma
10. Wyoming



High interest rates, as the past couple of years have painfully shown, can be catastrophic for small companies, wherever they are. Generally, states can do very little to mitigate borrowing costs for small companies. Apart from the cost of funds, though, capital resources vary widely from state to state. What is more, the types of resources in place in the state and how they are being used can be critical if, like most companies, yours cannot meet all its capital needs. Therefore, capital resources, along with state support programs, receive our heaviest overall consideration in ranking the states' climate for small business.

To see how the states stack up in terms of capital resources for small business, INC. looked first at two sets of banking industry figures—total state commercial bank loans as a percentage of total assets, and commercial and industrial bank loans on a per capita basis. While these measures don't tell what types of businesses are getting the loans—or even whether all the funds are being lent within the state—they usually reflect the degree to which banks are using their asset bases for aggressive lending to meet the working capital needs of business.

INC. also analyzed the states for special capital programs, such as direct loans, loan guarantees, bond guarantees, and state-sponsored venture capital investing, in the belief that these can help bring capital other than working capital to small companies. Because most experts believe that even small-issue industrial revenue bonds tend to benefit large companies and their subsidiaries with solid credit histories, we didn't consider IRBs. Finally, INC. looked at small business investment company (SBIC) investments in the states on a per capita basis, as an indicator of the relative availability of venture capital.

California, with its aggressive banks and active SBICs, emerges as the state with the most extensive capital resources for small business, a distinction it certainly would have earned more easily had all sources of private venture capital been included. Next come Connecticut and New York, whose ranks reflect their active banks, SBICs, and the targeted capital programs in place. Oklahoma and Wyoming aren't usually thought of as states with substantial capital resources, but both benefit from high levels of SBIC investments and per capita commercial and industrial bank loans.

South Carolina, West Virginia, and Delaware emerge as the states where a lack of capital resources—or an unwillingness on the part of commercial banks to lend—poses hurdles for growing small businesses. For instance, commercial and industrial lending in these three states is anemic compared to that in the rest of the states. Low levels of banking activity within a state can, of course, stem from depressed loan demand in a slow economy, but conservative bankers seem to be at least as great a factor.

Labor: The Plains states set the pace

1. Wyoming
2. North Dakota
3. Nevada
4. Kansas
5. Nebraska
6. Arizona
7. Colorado
8. New Hampshire
9. Utah
10. South Dakota

When it comes to labor, the needs of different types of small businesses vary substantially. Most companies, of course, are interested in keeping labor costs down as much as possible. But few can afford to ignore requirements involving skill and concerns over productivity.

In examining labor markets within each state, INC. looked at comparative wage levels for manufacturing and at comparative levels of unionization, which can be a factor in high wages. But in addition to factors affecting the price of labor, INC. also compared the states by levels of productivity and by levels of education among workers.

For productivity, the question was how much each worker added to the value of manufactured goods. In education, the percentage of state residents over the age of 18 who have completed high school was considered, although companies needing highly skilled employees might consider the number of engineering graduates.

At the top of the chart for labor are Wyoming, North Dakota, Nevada, Kansas, and Nebraska. Among these high scorers, however, Kansas is the only state with low union activity. None of the 5 states ranks among the top 10 in terms of low wages. In all but North Dakota, however, 73% or more of their residents over the age of 18 hold high school degrees.

Poorest performers in the labor category are West Virginia, Illinois, Indiana, and Pennsylvania. They have work forces in which only 53% to 67% of the workers hold high school de-

Such programs can be extremely valuable for bringing awareness and help to small companies. But for states facing difficult economic times and declining industries, the future may require more specialized programs in the areas of capital resources, job training, and technical assistance—all aimed at broadening opportunities for small businesses.

In the past, several states targeted most of their initiatives at existing companies, through efforts such as technical assistance programs in conjunction with universities. But increasingly, some states—Pennsylvania, Georgia, and New York, for example—appear to be highlighting new companies as the important thrust in their economic development efforts. Each of these states is directing money into supporting technology-based start-ups, with technical universities playing key roles (see page 100). Notes Roger Vaughan, a consultant at the Council of State Planning Agencies in Washington, D.C., and former deputy planning director of New York: "States interested in distinguishing themselves will have to do a lot more in helping new businesses come about."

Just as important to the small business climates of many states, though, may be how well the capital and labor needs of growing companies can be met. A growing number of states are considering such measures as the revamping of investment guidelines on public employee pension funds and increasing the outlays for technical education. Through its new Technology Park Corp., for instance, Massachusetts is putting up $20 million for a center co-funded by industry in order to train engineers and other technical specialists in microelectronics.

Some experts are convinced that every state will need to help reshape its work force to accommodate businesses. During the next decade companies are going to need a great many technically competent workers for seemingly nontechnical jobs, according to a number of authorities on small business.

It may not be easy for public officials to think about helping small business in such ways, especially in the Midwest and the South, where the emphasis has long been on big companies and large manufacturing plants. "Politicians don't have to learn how to wave 1,000 jobs around," says Alexander Dingee, president of Venture Founders Corp., a Waltham, Mass., company specializing in assistance to start-up companies. "But it's a lot harder for them to make election-year claims about how they've helped small companies." ☐

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grees, and all are heavily unionized in their major industries. In addition, wages for Illinois and Indiana workers average among the highest for manufacturing in the nation.

State support: Kentucky leads the bandwagon

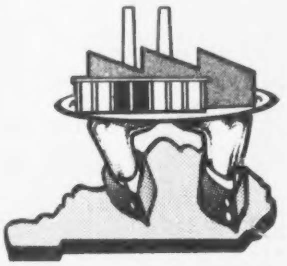
1. Kentucky
2. New York
3. Illinois
4. California
5. Wisconsin
6. Ohio
7. Delaware
8. New Jersey
9. Mississippi
10. Kansas

Official state recognition for small business won't make or break small companies very often, but it can give them a boost from time to time and help create a positive business climate. Programs that provide reliable information or technical assistance, for example, can save business operators both time and money.

INC. surveyed the 50 states to identify those that address the concerns of small companies through small business assistance offices, ombudsmen, statewide small business conferences, standing legislative committees, and governors' advisory councils. Nine states have created new legislative committees in the past year, bringing the number of legislatures with small business committees to 21. What is more, 13 governors have recently formed new advisory councils, bringing to 29 the number of states with that form of small business support.

The number of states committed to purchasing a specified portion of their goods and services from small businesses—usually 5% to 15%—has also increased substantially. Twenty-five states currently have procurement set-aside programs, 10 of which were established in the past year.

Kentucky, New York, and Illinois emerge at the top of the charts for official state support for small business. They are the only three states in the nation with a full array of the programs measured in INC.'s survey. But even more noteworthy is that, in the past year, 25 states have upgraded their small business support activities.



The most improved state is Delaware, which installed four new components to its small business support: an assistance office, an advisory council, a legislative committee, and a procurement program. Almost as impressive is New Hampshire, which added three programs but still lacks an advisory council.

Among the other states demonstrating increased support are Mississippi, Kansas, Rhode Island, Maryland, and Missouri.

Taxes: Indiana takes the smallest bite

1. Indiana
2. New Hampshire
3. Missouri
4. Ohio
5. Tennessee
6. Alabama
7. Florida
8. Texas
9. Arkansas
10. Kansas

As unpleasant as taxes are to many small companies, their importance to a state's overall business climate is seldom on a par with such factors as capital and local resources. Nevertheless, the level of state and local taxes that businesses and individuals must pay tells something about whether it is possible to operate and grow in that state.

Since states tax businesses so differently—by income, payroll, or inventory, for example—and vary greatly in terms of tax credits allowed, state officials and tax experts agree that any direct comparisons are nearly impossible. Instead, INC. focused on the overall level of state and local taxes as related to each $1,000 of personal income—a measure that can be examined on a state-by-state basis. By this measure, Indiana's tax rate of $88 per $1,000 was the nation's lowest, followed by New Hampshire ($92), Missouri ($93), and Ohio and Tennessee (both with rates of $94).

The state with the highest tax was Alaska at $368, although in reality nearly all of the state's revenue is drawn from big energy companies. (In fact, most Alaskans pay no state or local taxes.) New York, where individuals pay $163 per $1,000, was No. 2 , although it has just enacted new rules for start-ups (see page 101). Following New York are Hawaii and Wyoming (both $148) and Massachusetts ($139).

Such tax burdens are comparatively stiff. But tax specialists and economists point out that high state taxes rarely influence a business decision about whether to start up or expand in a particular location—except in the unlikely event that other variables are equal. For one thing, higher taxes can mean better services and schools. "If you can sell 10 times as many widgets in New York as you can in Mississippi or Alabama, you don't mind paying those high taxes," says a national tax partner for a Big Eight accounting firm. "Taxes are usually just the tail," he says, "not the dog."

Bradford W. Ketchum Jr., a senior editor at INC., assisted in the preparation of this section. Anita Harris, a freelance writer, and Carol Holliday Blew, a business analyst, both based in Boston, assisted in research and data analysis.